

THE  
ARCHITECT  
& BUILDING NEWS

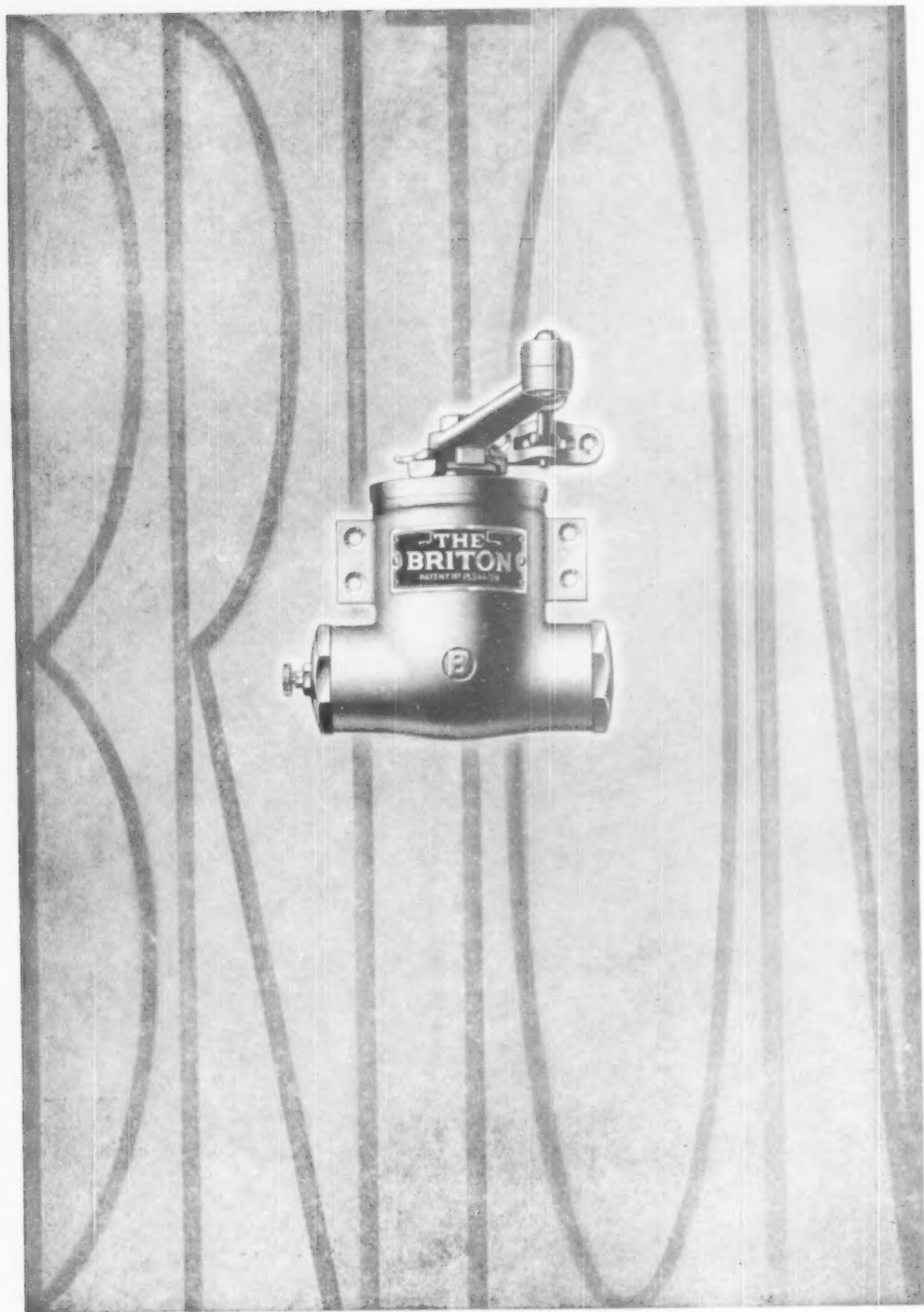
*In this issue*

• CHARLES HOUSE, KENSINGTON, W.

• M.o.H. HOUSING MEDAL AWARDS

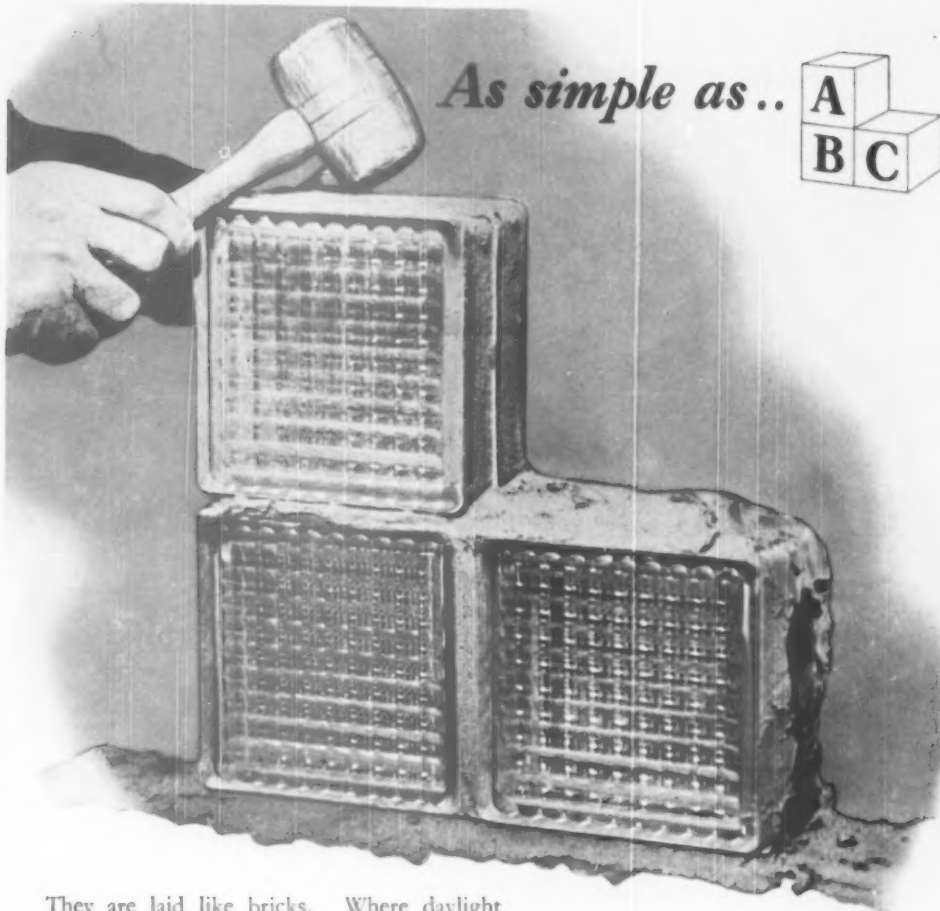
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AUGUST 25, 1950 • VOL 198 • NO 4262 • ONE SHILLING WEEKLY



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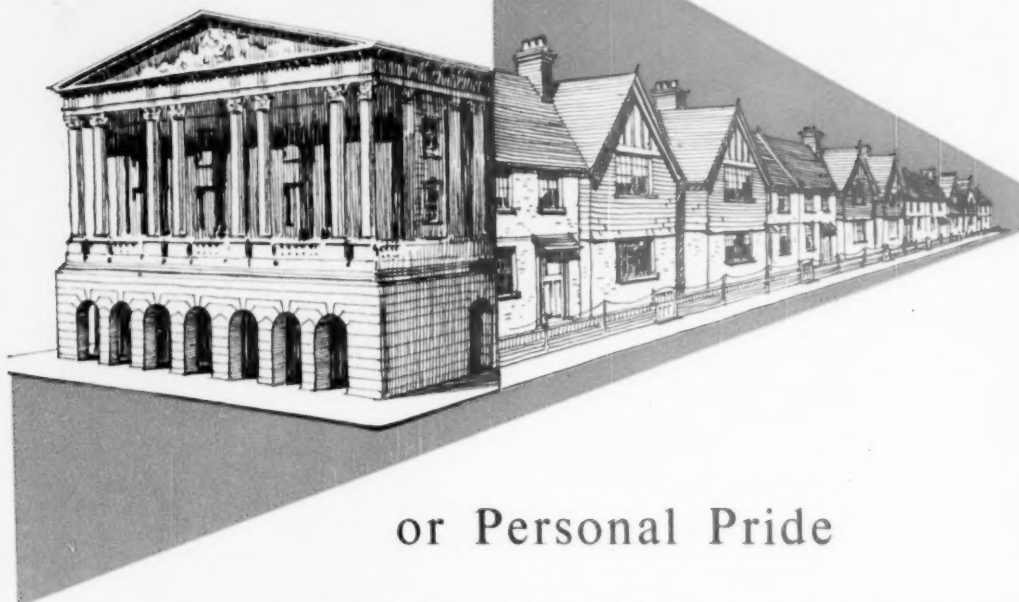
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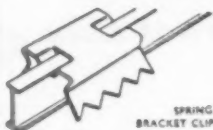
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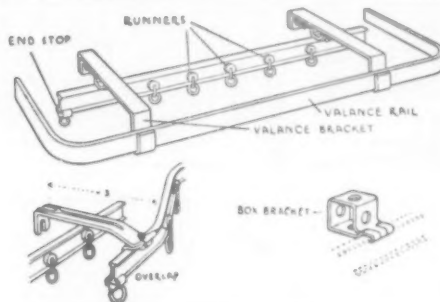
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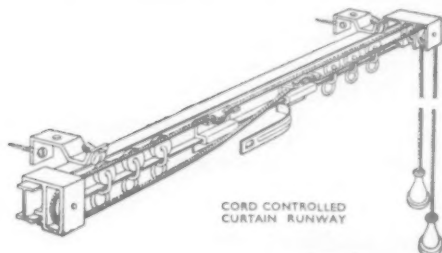
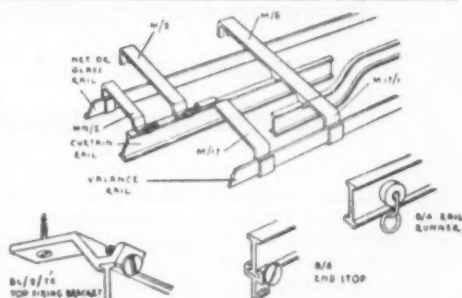
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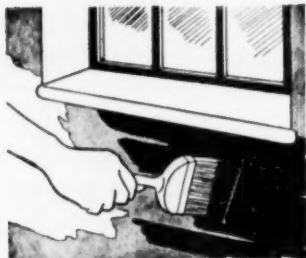
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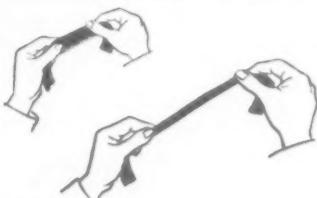


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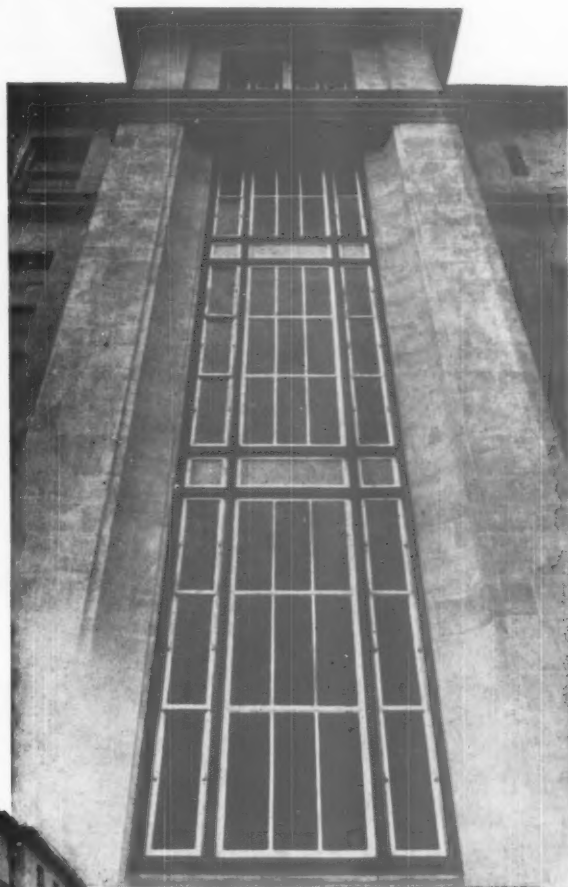
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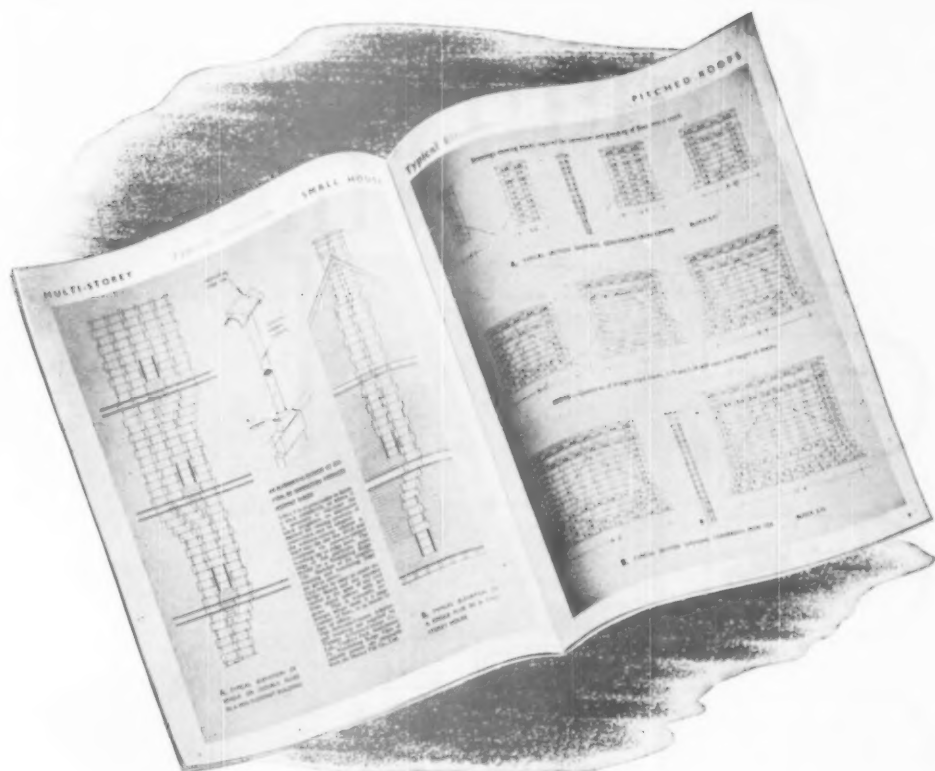
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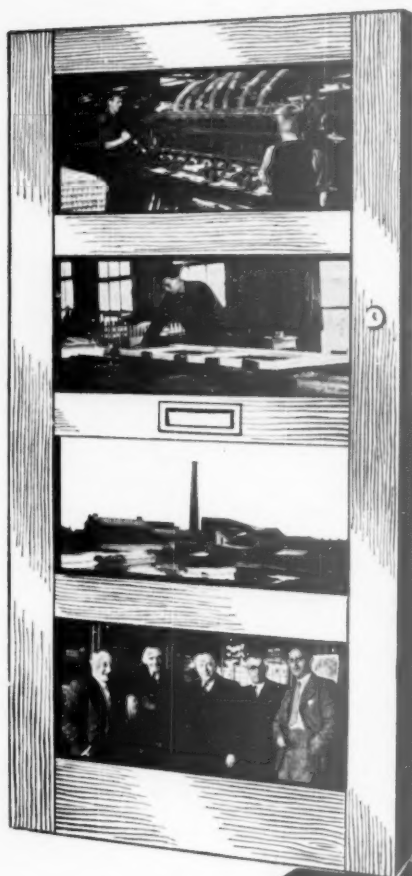
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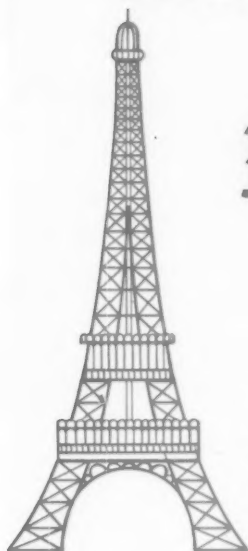
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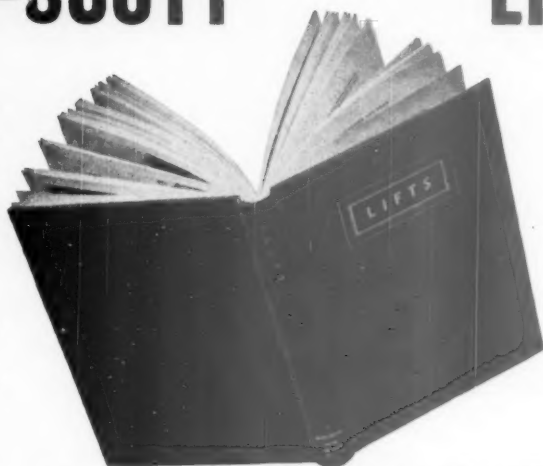
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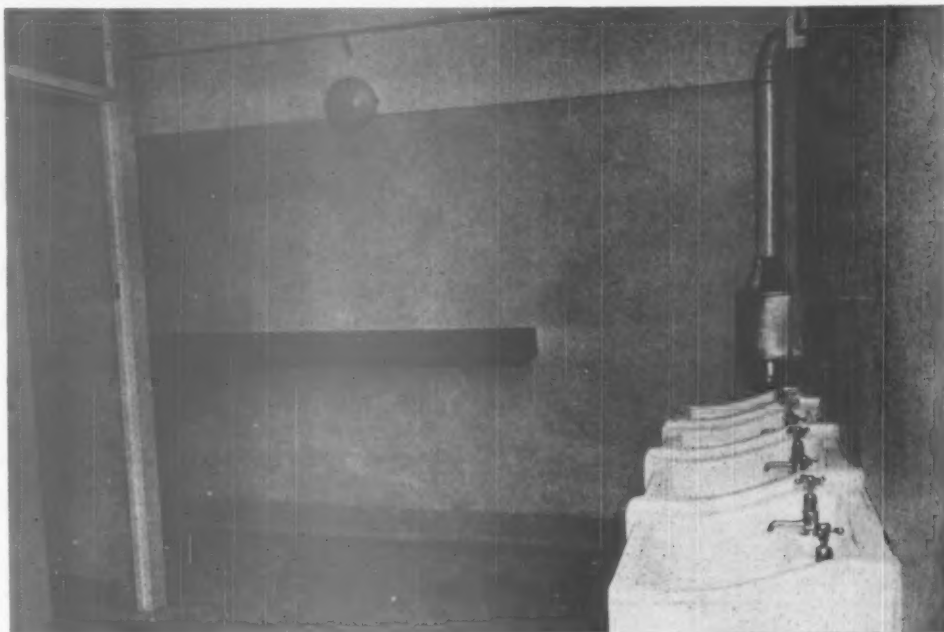
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## THE WORK OF M.O.W.

THE Ministry of Works has again issued its annual Report.\* It varies in superficial appearance from its predecessors in two ways; although the number of its text pages has not increased it is now called "Annual Report" and not "Summary Report." Of exactly what is the significance of this change, there would appear to be no clue; unless it is that, this time and for the first time, pictures of past work and proposals for future efforts are included on four pages of photographs—which accounts in turn, perhaps, for the increase of sixpence in the price. The illustrations, which vary in content from office desks to Colonial Offices, give an added humanism to what is otherwise very much of a routine and somewhat dull looking document and they must, therefore, be welcome to all who refer to its pages.

There are some large statistical figures given in the Report: £198,000 worth of soda and soap is a lot of soda and soap, but it is what the M.O.W. has disposed of since the end of the war. The total output value of the Building and Civil Engineering Industry for the year was £1,255,700,000; of this sum the M.O.W. were responsible for the direct use of £41,500,000 in the construction of new buildings and in the maintenance of 23,500 existing Government or requisitioned buildings—a thirteenth part of the total.

It must be remembered, however, that this is not quite the whole story; for although the M.O.W. is the "principal Government Department engaged in

building," there are other Ministries and most Local Authorities with responsibilities in the same direction which are not assisted by the organisation or executive of Works. All this development and maintenance is done internally—maybe wisely and perhaps as efficiently as it could be by any "outside" ("private") practitioners; but somehow we cannot quite get out of our heads the size of a possible complementary figure—quite hypothetical, of course—and that is 6 per cent on £41,000,000.

In spite of all the figures and facts that are given in this Report, none are to be found to tell us what staff and how many sections are required to carry out this large amount of building. Doubtless, if we probed deep enough into Treasury reports and budgetary debates, we could discover some of the missing figures. But we cannot recall anything which would tell us how many men and women are required to design and organise one million pounds' worth of building work in a given time and how much office space is required to do it in. Most private practitioners know this sort of thing either by experience or the multiplication of experience. How nice it would be for all to be able to compare notes about these things; yet we cannot recall having seen such sectionalised figures given, even in the proceedings of local authorities. Is it too much to hope that numbers of staff and amounts of accommodation and total salary amounts of all sections of the M.O.W. will be given in future reports? After all, the taxpayer has some interest in the ways and means as well as the ends, and may have much less time than interest to enable him to dig out such information. What better place than the M.O.W. Report to include this information for

\*Annual Report of the M.O.W. 1949. H.M.S.O. (Aug. 1950) Cmd. 7995. 1s. 3d. net.

even those taxpayers who are also interested professionally.

We are glad to see that so much of the scarred battle areas of Suffolk and of the Downs have now been restored to rural and agricultural quietude. But much remains to be done in other areas; the M.O.W. cannot continue or complete its good work until the grasp of service departments is relinquished.

Among other items of "restoration and compensation," we are interested to see that the M.O.W. completed "restoration work" on 3,238 acres of land which had been submitted to the operations incidental to the "winning" of open-cast coal. The cost of so doing is not mentioned nor is any indication given of the results of the restorations or what the owners think

about it now that is done. Perhaps we should refer to Fuel and Power for enlightenment. We suppose we could find out, but would it not be better to have all the relevant facts about a particular thing in one place, otherwise why just mention it in any place? One other thing strikes us about this restoration of open-cast workings—curiosity again—is there an end-of-contract maintenance period as there is for building work?

No report is, we suppose, ever issued but makes it necessary to issue still another to answer the questions involved by the first: but, somehow, we do not altogether regret sometimes falling into that sort of trap—or is it error?—and in the present instance, of course, we have done so.

## EVENTS AND COMMENTS

### THE ST. ALBANS GASWORKS

THE M.O.T. & C.P. and M.O.F. & P. inquiry has now closed and we must await results on this interesting question. I wish I had been there on the day that Professor Richardson gave evidence. There was a blackboard in the room and two friends of mine who were present had a bet that he would use it during his evidence. He did. I can imagine it, chalk flying to a priceless running commentary. Professor Richardson is the perfect choice for such a task, I wonder that no one has thought of him before. The other thing that I liked about the evidence was the statement by Lieutenant-Colonel William Foster Greenwood, secretary of the Hertfordshire Society, who said that the works not only adversely affected

the cathedral but were an "absolute prostitution" of the amenities of the city generally. Gad sir, he's perfectly right! What with architectural "stews" and "absolute prostitution" the country's going to the dogs.

### STREET FURNITURE

JOHN BETJEMAN has complained, in a letter to *The Times*, of the hideous concrete lamp posts which have been erected in Abingdon, Hungerford, Wokingham and elsewhere. (See this page, July 14th). His main complaint is that they are out of keeping with the brick towns in which they are used. He also says that they are out of scale with most of the buildings and are too thick. Mr. Betjeman points out that he has seen the catalogue from which these horrors were chosen and which bears upon its cover the information that the contents have been "passed by the Royal Fine Art Commission" and asks "can it be really true that the Royal Fine Art Commission approves of their being set up in such old and beautiful towns . . . ?"

Mr. Betjeman thinks that the lamp posts in question might look well outside some buildings, and in doing so perhaps he is trying not to be too hard on the Commission. I think the posts would be frightful anywhere. The statement that the posts have been "passed" by the Commission is I think somewhat misleading. It means, I believe, that they represent the best available and the word "passed" should not be confused with "approved".

### RAILWAY STATIONS

THE news that a quarter of a million pounds is to be spent on doing up ten suburban stations on the L.M.S. will be welcomed by those who use those stations but it seems to me that the money might be better spent on one or two really important stations, and I suggest that one of them should be Chester which must surely be the dirtiest and most depressing in the kingdom. Perhaps the fact that it is the joint responsibility of the Midland and Western regions is a difficulty. As a regular traveller on the Great Western I found the L.M.S. grimy by comparison and this griminess was at its worst at Bangor where the prevailing wind blows the smoke from the locomotive yard straight across the platforms in the most unpleasant manner.

On the whole I think that railway catering has



The attraction on the Festival Site.





"Now, what did I come up here for?"

The photo is of the Central Station, Liverpool, and was taken by Norman Westwood, A.R.I.B.A.

vastly improved since the war. I have had several good lunches on the Southern and had an excellent dinner on the L.M.S. the other day. At Bangor, however it is still "no cups outside" nor bottles either, and a good deal of business is lost as a result. The Butlin's Specials pausing on their way to Pwllheli are full of thirsts which go unquenched at Bangor. At Menai Bridge just along the line the station building is a Victorian treat. At Brynkir they have won the competition for the best kept station in the area, the flowers are lovely and they have a special pair of steps to help the elderly alight because the platform is very low.

#### AMERICAN COMPLAINTS

I mentioned some time ago that American architects seem to have plenty of time to write to the editors of their technical papers. American visitors to this country seem to be similarly inclined towards our national press. I have seen quite a number of letters this year, most of them complaining. Someone I suppose selects the letters to be published in the daily papers and I imagine that pro and con are roughly balanced. Some of the letters are unnecessarily rude but most have a basis of fair, if outspoken, criticism. I suppose we should not complain for they are our customers and the customer is always right. All the same I have never felt moved to write to a French newspaper to say that I consider their street urinals unhygienic. I just shrug my shoulders and am thankful for them.

You may have heard of the type of restaurant in America where the client is driven slowly past the

food and must complete his meal before he gets to the end of the counter. Giles of the *Daily Express* has found another sort. You put your money in the slot and a stool pops out of the floor for fifteen minutes while you bolt your food. At the end of the fifteen minutes the stool goes back into the floor with a smack. I can think of no device better suited for the production of nervous breakdowns and duodenal ulcers.

#### THE THREAT TO SNOWDONIA

OPPOSITION to the proposed North Wales Hydro-Electric Scheme is being largely organised by Old Bartlett Boy Colin Gresham, architect-turned-farmer and archaeologist, and local secretary for the Council for the Preservation of Rural Wales. He tells me the threat is a real one and points out that there would be six power stations between Pont Aber Glaslyn and the Pen Y Gwryd Hotel. What with the dammed lakes, the leats for leading the water down the mountains, the pipes, and the distribution wires, the British Electrical Authority look like contributing heavily to the preservation of Rural Wales. The opposers of the scheme say that there will be insufficient water to allow the scheme to operate all the time. The proposers hold out the boon of electricity to the oil-lit mountain Welsh. This argument was never put forward as one of the reasons for the scheme until the opposition appeared. Up till that time the idea was to top up the midland grid during peak hours.

To considerable skill both practical and theoretical as a farmer Colin Gresham adds fluent Welsh, expert





Novel use for disused gas street lamp by roadside at Weybridge.

harp playing and a Bardic Title awarded at a Welsh National Eisteddfod.

#### DESIGN AND BREWERS

**A** FEW weeks ago I mentioned the firm of Courage as having a design policy and spoke of some

excellently designed accessories for its houses. I now have two other firms to add to the list. Messrs. Mitchells & Butlers, who have had some glass designed by J. C. Downing for bulk production, and Messrs. Hammonds United Breweries, for whom Sydney Cockerell has designed and bound some visitors' books.

#### HOW YOUNG DO YOU FEEL?

**I** WONDER whether it can be taken as a reflection on the youth and vigour of the architectural profession that I and most of my friends have recently received advertisements from a firm making rejuvenating pills.

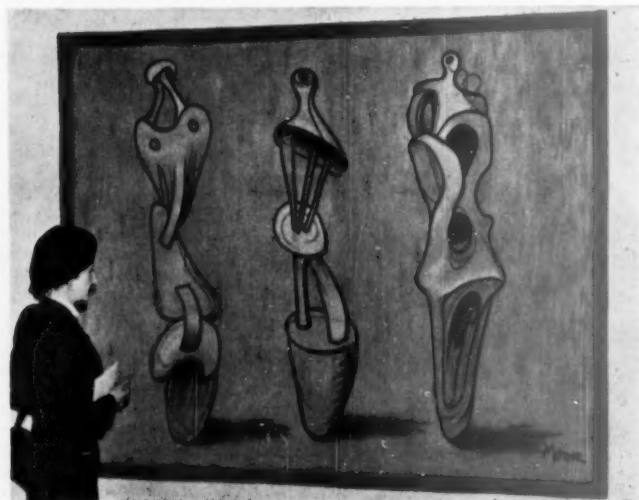
#### YOUR LOCAL BUILDINGS

**B**OOKS which help the generality to know about architecture are to be encouraged but they should be well done otherwise more harm than good may be done. I do not think that "Your Local Buildings" by Kathleen Harston and Elizabeth Davis (George Allen and Unwin, 4s. 6d.) is well done. The text is full of airy generalities and half-truths to put it mildly. Many of the illustrations bear only the faintest resemblance to the type of architecture they affect to portray; a few are good, others are very bad. The book is intended for young people but even they may question the statement that "the top storey windows let in much more light in a house with a flat roof than in one with a sloping roof".

#### MY HOLIDAY

**A**S may have been guessed from my references to Chester and North Wales I am on holiday. I hope therefore that you will forgive a slightly shorter column this week. The weather? So far quite abysmally awful. The fault of St. Swithin I am assured.

A B N E R



Design in tapestry by Henry Moore. This is in the current exhibition of modern tapestries which has been arranged by the Saltire Society for the Edinburgh Festival. The tapestries are woven at the Dovecote Studios, Corstorphine.

## NEWS OF THE WEEK

### New Zealand to Import Prefabricated Houses

The New Zealand Government have decided to import a representative range of prefabricated houses from sterling and soft currency countries for experimental purposes. Quality, cost and general suitability will be considered before it is decided to import houses in quantity.

### Salisbury Cathedral

The top 27 ft. 6 in. of Salisbury spire has now been demolished in spite of attacks by flying ants.

### Public Works and Municipal Services Congress and Exhibition, 1950

Local Authorities in Great Britain have already appointed over 900 delegates to attend the Public Works and Municipal Services Exhibition and Congress which are to be held at



Not too little; not too much. Traffic roundabouts at (L.) Bristol and (R.) Plymouth

Olympia, London, from November 13-18. Exhibitors number 250 and include the Ministry of Agriculture and Fisheries and the D.S.I.R.

The Congress and Exhibition are being held under the patronage of H.M. the King and under the presidency of the Minister of Health, Mr. Aneurin Bevan, M.P., who will perform the opening ceremony.

The Congress and Exhibition for the first time this year embrace what were formerly two national events held in alternate years—the Public Works, Roads and Transport Congress and Exhibition and the Public Health and Municipal Services Congress and Exhibition. The new comprehensive Congress and Exhibition will thus cover the whole field of local government activity and are expected to bring together administrators and technicians from many parts of the world.

The range of exhibits will be wider than ever before. This will include

machinery for road and bridge construction and repair; vehicles and equipment for cleansing of highways and streets and for removal and disposal of refuse; machines for building and other construction work, for water supply, sewage purification, and other purposes.

The full programme of the Congress will be published in September.

The Congress Hon. Secretary is Mr. C. W. Scott-Giles, M.A., 84 Eccleston Square, London, S.W.1. The Exhibition Organiser is Mr. J. Pattison, 68 Victoria Street, London, S.W.1.

### Furniture Competition

Thirteen firms have entered 44 ship's chair designs for a competition sponsored by the Scottish Furniture Manufacturers' Association and organised by the Scottish Committee of the Council of Industrial Design which will be judged in Glasgow on October 10 and 11.

The judges will be Sir Colin Anderson of the Orient Line, Professor R. D. Russell, R.D.L., F.S.I.A., of the Royal College of Art, London, and Mr. Basil Spence, F.R.I.B.A., F.R.L.A.S.

### PARTNERSHIP

Mr. Stanley Hamp, F.R.I.B.A., of 126 Wigmore Street, W.1, announces that he has taken into partnership Mr. D. Bryan Frowd, A.R.I.B.A., Mr. Alex Moira, A.R.I.B.A., and Miss Christian Hamp, A.R.I.B.A. The practice will continue under the style of Colclutt & Hamp, Architects.

### OBITUARY

The death was announced on August 15, of Harold Percy Williams, F.R.I.B.A., of Sussex, aged 72.

The death was announced on August 16, of Mr. Donald Brooke, F.R.I.B.A., of Blundellsands, aged 53.

## C O R R E S P O N D E N C E

### Bishop's Bridge Road Scheme

#### Criticism—

To the Editor of A. & B.N.

Sir,—I would like to refer to the most extraordinarily glaring mistake that has been made in the Paddington Housing Scheme as illustrated in your paper dated July 28.

The windows to the living rooms and bedrooms are in all cases in the extreme corner of the room. This is bad enough in a bedroom but quite impossible in a living room as anybody like myself, who has lived under such conditions will verify.

Do for God's sake place the windows in the middle of each room.

I am, etc.,

J. EDWIN FORBES.

#### —Reply

Sir,—You were kind enough to send us a copy of a letter that you had received from J. Edwin Forbes, and we should like to comment on it as follows:

The author of this letter appears to consider that there is an immutable law

which requires that all windows under all circumstances must be in the centre of a room.

While we are of the opinion that under no circumstances should a window be arbitrarily placed in a room, its exact position is dictated by a variety of considerations of which the most important ones, internally, are:

1. Adequate distribution of light in relation to the size and shape of the room.

2. Maximum freedom with regard to the placing of furniture.

3. Visual orderliness with regard to position, size, proportion and treatment.

As such, the author is quite right to recognise that a central window can fulfil the above requirements, but quite wrong to think that no alternative can exist.

We are, etc.,

LINDSEY DRAKE.

DENYS LASDUN.

### Wall's Ice Cream Trailer

To the Editor of A. & B.N.

Sir,—We were most interested to read the comments on the Wall's Ice Cream

"Temple" at Canterbury Cricket Week.

Your commentator is no more severe in his comments than we have been. We can only assure him and your readers that the present trailer is a good deal less fake than the original as it came to us. Why have it at all? The answer is simply the post-war chase for vehicles and equipment is, as everybody knows, very difficult, and as we are unable to obtain all that we require in our business, in this instance we were compelled to buy in a ready-made job. Normally, we assure you, we do not appreciate stained glass heraldic devices, nor pillars of uncertain order! However, please do not class us with the Tavern Cars.

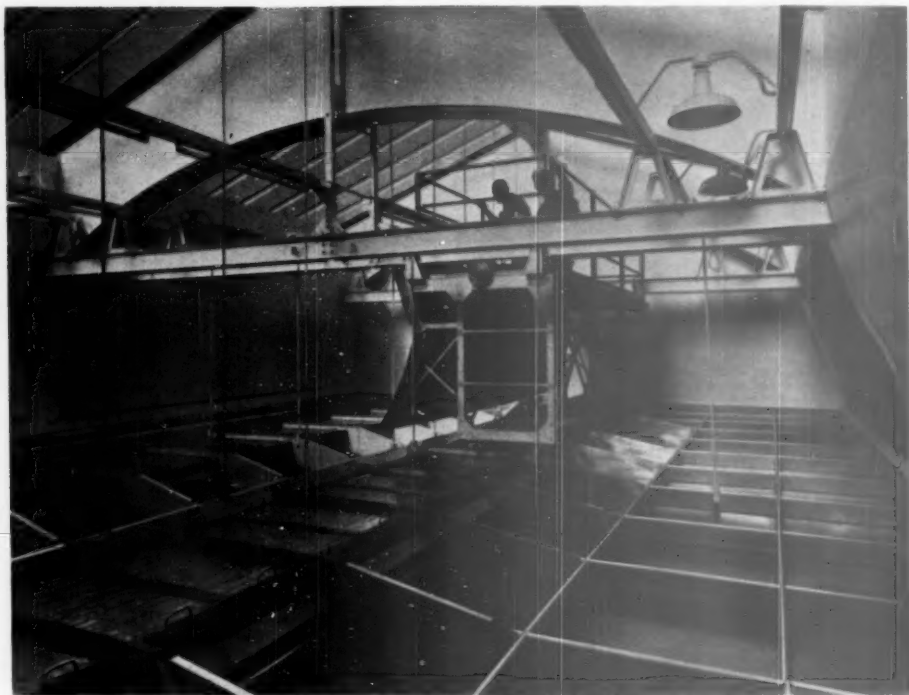
Oddly enough, the general public, less discriminating than your contributor, have repeatedly congratulated us on this particular job. It does not however compare with many other of our trailers and function equipment.

I am, etc.,

For and on behalf of

T. Wall & Sons Ltd.,

H. GYLE-THOMPSON, Director.



*This view taken above the glass ceiling in Gallery XXIX, shows the supplementary light fittings at high level and the travelling platform for maintenance.*

## AIR-CONDITIONING AND NEW LIGHTING AT THE NATIONAL GALLERY

**G**ALLERY XXIX is the first in the National Gallery which has been air-conditioned and illuminated with modern artificial lighting. The whole scheme has been designed by the Ministry of Works and carried out under their supervision, and is among the most advanced of its kind in Europe. The Gallery was opened to the public on Monday, August 21.

During the war the National Gallery collection was stored in mountain caves which had to be equipped with air-conditioning. It was then found that damage to the pictures caused by fluctuating relative humidity was reduced by nearly 75 per cent. After the war planning of air-conditioning at Trafalgar Square was begun and the idea was further supported by the urgent recommendations of the Weaver Report in 1947.

In the cleaner atmosphere of air-conditioning there is no need to protect paintings behind glass. The absence of glazing, in turn, helps to overcome problems of reflection and thus makes possible the use of far stronger illumination.

Air-conditioning, besides being needed for the preservation of the paintings, is of value to the visitor because it reduces fatigue by providing

better ventilation and an even temperature throughout the seasons.

The engineering costs of £15,000 include enough air-conditioning plant to serve a further five rooms. The building costs of £25,000 include £7,000 for the new plant room.

### *The Air-Conditioning Plant*

The plant now installed at the National Gallery is sufficient to supply several other rooms in addition to Gallery XXIX. It is housed at the rear of the West Wing, an existing light-well area having been excavated for the purpose. In selecting the plant the Ministry of Works took advantage of available machinery from Government disposal stock.

In the layout of the plant the least possible major structural alterations have been made to the existing building. Thus, the air supply duct system has been arranged in existing crawlways under the ground floor of the building, and the inner linings of Gallery XXIX have been brought forward to house the air ducts. The spillways for the ducts are just below the glass ceiling.

The original marble skirting of Gallery XXIX has been retained, and carries the six bronze grilles through

which air is extracted from the room. The marble door linings and architraves, much damaged during the war, have been restored save for the removal of the pediments.

The installation provides a temperature of 65 deg. F., with air at 58 per cent. relative humidity, throughout the year 24 hours a day. Extreme winter and summer external conditions of, respectively, 30 deg. F. with air at 78 per cent. relative humidity, and 80 deg. F. with 58 per cent. relative humidity, have been allowed for. A volume of air equal to six complete changes per hour. Of the air supplied, 90 per cent. is returned to the plant room where it can be re-used. Clean air free of dust particles. Before entering, all the air passes first through a cloth screen, specially woven to provide for maximum interception of dust particles, then through a water spray chamber.

The hot water mains serving the existing radiator heating system have been extended to provide for the heat requirements of the new air-conditioning plant.

### *The Lighting System*

The research carried out by the Department of Scientific and Industrial Research on the use of natural lighting

revealed that accurate control of daylight intensities was possible in a picture gallery, but required a relatively low ceiling and consequently a complete alteration in the proportions of the gallery. Because of this, the attempt to obtain such accurate control was dropped in Gallery XXIX. The present scheme has been approved by the Royal Fine Art Commission.

Up to about 20 years ago the National Gallery had to be closed at dusk, for there was no artificial lighting. When high-powered tungsten lamps in carefully designed lanterns were provided, the wall illumination was thought to be extremely good—at 3 to 4 foot-candles. With the new fluorescent tube lighting intensities of 15 and 20 ft.-candles are achieved.

The new system is intended to provide sufficient illumination of good colour-rendering quality from a concealed source. The glass ceiling is suspended 21 feet above the floor; this daylight insulates the room against temperature losses through the glass roof. It also screens the artificial light fittings which are so designed that they do not interfere with the natural daylight. The glass has been made specially for the purpose. Unlike ordinary glass, it does not alter the colour of sunlight; this is of great importance in a picture gallery.

The artificial lighting is obtained from five continuous lines of fluorescent lamps around the room, concealed within a system of deep louvres which form a pattern in the daylight. Daylight is allowed to pass between the louvres in such a way that no heavy dark bands or shadows appear in the daylight during daytime.

In addition to the main lighting there are, above the daylight, a few fluorescent and ordinary filament lamps the light from which serves to prevent the black appearance of the glass at night. The filament lamps also add a warm appearance to the general lighting.

To maintain the equipment, and for polishing the large areas of glass, four two-deck travelling platforms have been designed to move horizontally above the glass ceiling. From the two decks, work can be carried out at all points between the daylight and the roof ridge. The platforms are easily operated by hand.

The floor, formerly of oak with a slate border, is now of polished cork tiles, which are quieter and softer to the tread. The walls are covered with a damask fabric of silk and wool.

Five other galleries, which can be fed from the existing plant, will be treated in the same way as Gallery XXIX if the experiment proves successful.

The air-conditioning plant keeps the air stable in temperature and—more important—in relative humidity. It also keeps the air clean. Variations in humidity are the chief cause of fundamental damage to old pictures; on the whole, they do more harm to panels than to canvases. Air-conditioning can reduce this deterioration enormously. Excessive humidity condenses on the surface of pictures and mixes there with

the deposit from dirty air. The film thus formed cannot be removed without friction. It is to avoid this that glass is used. Air-conditioning thus also renders glass unnecessary.

The ultimate aim is to have all the rooms in the Gallery air-conditioned, and all the pictures clean and unglazed. It is not easy to select the small number of pictures which can be hung in this one specimen room. To collect the most delicate pictures in the Gallery together would mean a hotch-potch of different Schools, and an unsightly collection; whereas the new room is also intended partly as a demonstration of improved exhibition technique, for air-conditioning makes it possible also to keep the room itself clean, which allows the use of textiles on the walls and upholstered furniture. The Italian panel pictures of the 15th century happen to include many of the most important pictures and many of the most delicate. So the pictures chosen are all Italian; and are as near together in date as possible. Some pictures here: e.g., Leonardo's "Madonna of the Rocks", have recently been cleaned, and others, now being cleaned, are to be added; e.g., Piero della Francesca's "Nativity" and Giovanni Bellini's "Madonna of the Meadow" and "Circumcision". These will not be ready until November; meanwhile their place is filled by less important pictures. It will not be until about November that the arrangement of the room can be considered reasonably permanent.

## D.S.I.R. STATEMENT ON REFUSE DISPOSAL

### Possibilities of a new method

EXPERIMENTS to help solve the problem of the disposal of refuse and which incidentally will reclaim derelict land for useful purposes are at present in progress. They are being carried out by the Chemical Research Laboratory, D.S.I.R., in collaboration with local authorities.

The disposal of refuse is an important and awkward problem. Incineration is expensive and even after incineration about 40 per cent. of the total volume remains for disposal. There is also a serious shortage of tipping sites. On the other hand, many areas of the country are studded with large gravel pits and quarries, now worked out, most of them filled with water. If the rubbish could be dumped into these not only would a new and cheap method of refuse disposal be available, but considerable areas of derelict land which could be used for housing or agriculture would be reclaimed. The disadvantage of this method, as some authorities know to their cost, is that indiscriminate tipping may easily cause a serious nuisance. In some exceptional cases this has not happened, but the risk is always there.

The nuisance is caused by the growth of living organisms known as sulphate reducing bacteria. These bacteria transform sulphates in contaminated waters to hydrogen sulphide, better known to most people from their schooldays as

sulphuretted hydrogen, a gas with a very offensive smell. Sulphate reducing bacteria exist in almost all soils and waters but do not begin to grow until suitable organic matter is fed to them. When rubbish containing putrescent material is tipped into a wet pit the sulphate reducers may grow very rapidly and produce large quantities of this foul smelling gas. Pits contaminated in this way are a nuisance to people living near them. When the wind is in the right direction local inhabitants are subjected to highly unpleasant smells. Cases have been reported to the Chemical Research Laboratory in which the paint of nearby houses has been blackened both inside and out and it has been impossible to keep silver and copper utensils clean and bright.

The experiments in progress now are being carried out by the C.R.L. in collaboration with the Twickenham Borough Corporation. A new refuse disposal works is being built in the centre of a ring of wet gravel pits, and it would be obviously desirable if the clinker from the incinerators and the fine refuse which is not incinerated could be tipped into them.

Both the materials have been tested in the laboratory. The clinker produced no sulphuretted hydrogen even after long incubation in water but with the fine refuse it began to evolve after only twenty-four hours. The Borough Engineer in charge of the scheme has suggested dividing one of the pits, containing about 120 million gallons of water, into lagoons holding about 1 million gallons, the walls of the lagoons being made of the inert clinker. The idea is that the fine putrescent refuse should be tipped so quickly into the comparatively small lagoons that they should be completely filled before any nuisance develops. If any sulphuretted hydrogen should occur it could easily be stopped by adding sufficient acid to prevent further growth of the bacteria.

An experimental lagoon has been built to test the method on a practical scale. Tipping of the fine refuse has begun and early results are encouraging. It would be even better to be able to tip crude household refuse direct into the lagoons without the trouble and expense of incineration and it is proposed to try this after the experiments with the fine refuse have been completed.

The ideal solution to the problem would be to use another micro-organism which consumes the sulphuretted hydrogen as fast as the sulphate reducing bacteria produce it. There are several types of bacteria which consume sulphuretted hydrogen and the possibilities of this method of control are being investigated.

## Leeds "Building Week" Exhibition

Work has begun on the national "Building Week" Exhibition to be held at Hunslet Moor, Leeds, and which it is claimed will be the largest of its kind to be staged. The Minister of Works, Mr. R. R. Stokes, will open the exhibition on Monday, September 11,



*View from the roof of Olympia.*

# CHARLES HOUSE

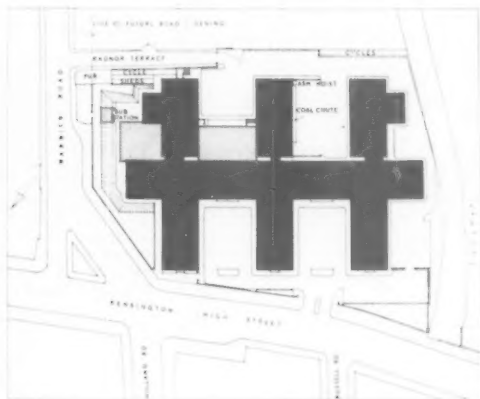
KENSINGTON, W

architect

ARTHUR S. ASH, F.R.I.B.A.

THE site lies at the corner of Kensington High Street and Warwick Road, and was formerly occupied by a crescent of Georgian houses, known as Kensington Crescent. When the West London Extension Railway was run through the old canal cutting northwards to what is now known as Olympia Station, four houses were lopped off the western extremity of the crescent to give it way. Subsequently the crescent, together with the news premises in the rear and other houses facing Warwick Road, were demolished, leaving only the Radnor Arms public house which still stands until the widening of Warwick Road engulfs it. The north-east corner of the site, previously occupied by some ten houses, was later splayed off to widen and streamline the junction of the two important thoroughfares (Warwick Road being part of the "B" Ring Road on the County of London Plan).

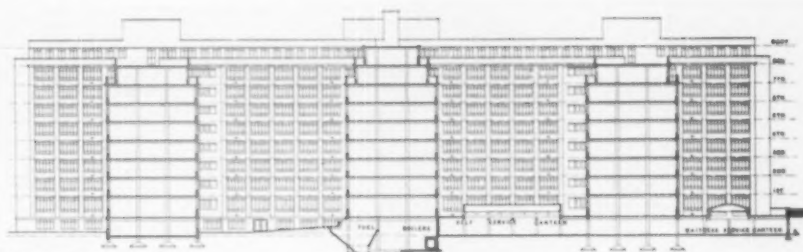
Proposals for the development of the site between 1918 and 1939 included an extension of the Olympia Exhibition buildings and a vast block of flats. Meanwhile the site was used as a car park and did war service as a vehicle depot for the Ministry of Supply. With mountains of coal in the old railway depot behind it, it has long been an eyesore.



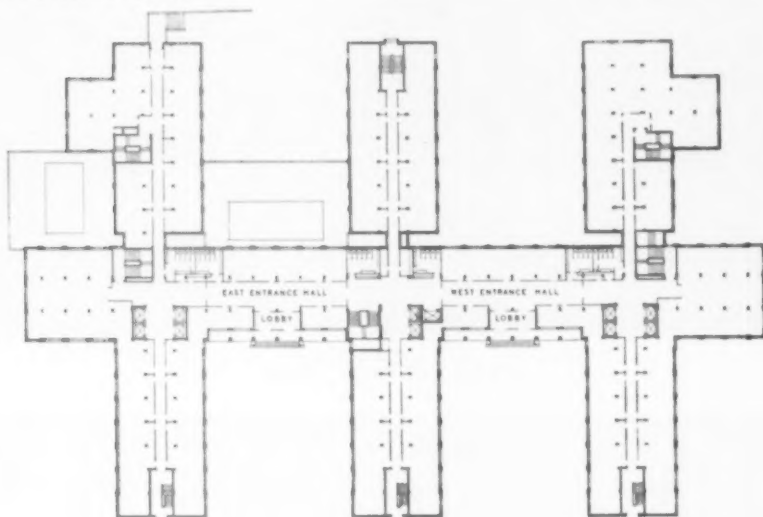
In 1946 the London County Council was approached for Town Planning permission to develop the site for Offices. At that time it was proposed that the junction of the "B" Ring Road and Kensington High Street should be in the form of a fly-over, with a large portion of the centre of the site occupied by a deep cutting to carry the Ring Road under the High Street. It was not until late in 1948 that this form of crossing was finally abandoned and permission to develop the site was given.

The development consists of a commercial office building of over five and a half million cubic feet. The construction was sponsored by the Ministry of Works, who are taking a

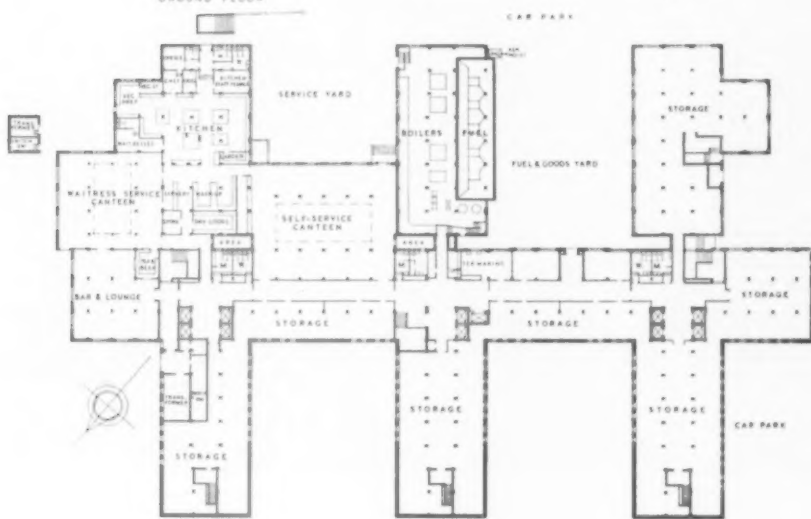




LONGITUDINAL SECTION.



GROUND FLOOR



BASEMENT PLAN



CHARLES HOUSE, KENSINGTON, W.



*The Self-Service Canteen.*

long lease of the entire building for use by various Government departments. This is part of a major scheme for providing sufficient government office accommodation by 1952, when requisitioning powers come to an end. The building was designed to the requirements and specifications of the Ministry of Works, but no special priority was given for obtaining the necessary materials or labour.

The building is planned on an open basis, with a central spine and six projecting wings. At the three main crossings, the dark corners are occupied by lifts, staircases and lavatories, leaving the maximum area of well-lit space for offices. This arrangement gives a neat roof plan and skyline, with the main staircase terminals, tank rooms and lift motor rooms grouped into three towers. The two entrance courtyards facing Kensington High Street give access to entrance halls at ground floor level, and use is made of the slope of the site towards the rear to provide service entrance at basement level. Two canteens with a common kitchen are situated in the basement, lit both by windows and glass-and-concrete barrel vaults, which are believed to be the first of their kind to be approved by any District Surveyor in the London area. The remainder of the basement accommodation is given over to storage. The offices are generally 20 feet deep, lit by large windows on a 13 feet grid. Corridors are 6 feet wide, lit by borrowed lights above door-head level. The building would accommodate about 4,000 persons.

Site clearance commenced early in November 1948; the reinforced concrete frame, floors and staircases were substantially complete in July 1949; and the whole building, apart from certain occupational services, details of which were received late, was finished in July 1950. As a result of the uncertainty of the availability of the site for building while the authorities were making up their minds over the "B" Ring Road, last minute amendments to the requirements of the Town Planning Authority, and all the other irksome factors which constrict the proper organisation of building projects in these times, only 1/16 inch scale drawings were available when work commenced. This put a great strain on the Architect and Consulting Engineer, and reflects considerable credit on the Contractors, especially the reinforced concrete engineers, who, at their peak, were completing the structural frame of each floor (53,000 square feet)

in under a fortnight. All detail drawings, specifications and bills of quantities were prepared after the commencement of work, as were all sub-contracts. Fortunately nearly all building materials were de-controlled about the time the work started.

The spacious site lent itself admirably to a system of pre-cast reinforced concrete construction already perfected on a previous contract. Briefly, this consisted of casting the beams and staircase flights in two suitably placed casting bays on the ground, and hoisting them as required on to the columns, which were cast "in situ". The portion of the beam below slab level only was precast, leaving the main reinforcement projecting at the ends, and stirrups projecting from the top surface. A specially devised temporary bracket was fixed to the head of each column, to assist in the accurate placing of the pre-cast beams, the reinforcement of which overlapped at the tops of the columns. When the beams were in place, expanding self-supporting steel shuttering units were placed, resting on the top edges of the pre-cast beams, and leaving a complete level platform on which to place the reinforcement for the floors. When the concrete was poured for the solid floor slabs, this integrated the various reinforcements projecting from the heads of the columns, ends of the beams and the beam stirrups, with that of the floors, to form a monolithic whole. The advantages of this system are:

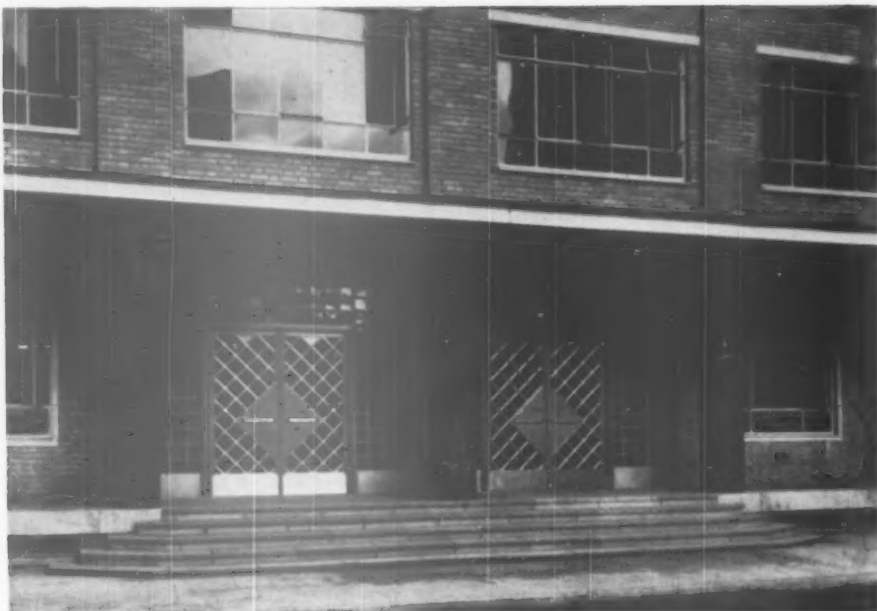
(a) Economy in timber for shuttering; for instance, all the flights for four staircases, each rising some 80 feet, were cast from one mould without the necessity for dismantling and remaking each time.

(b) Speed, by reducing the amount of work to be carried out at high levels under difficult conditions.

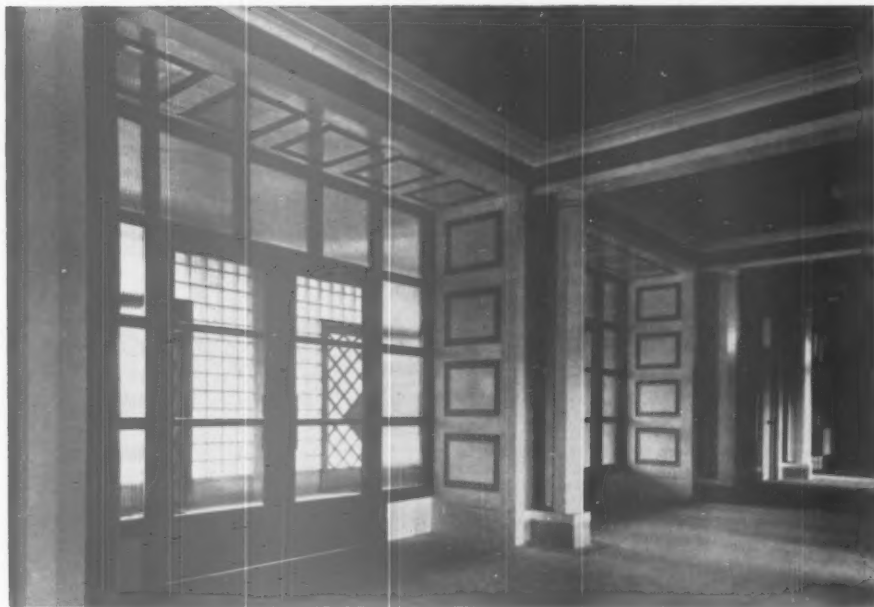
(c) Organization, by enabling an enormous stock of completed units to be available well in advance of requirements.

The whole building is divided into nine sections by eight expansion joints running right through the structure from top to bottom. These joints, which will allow some freedom of movement due to seasonal changes of temperatures, are primarily intended to reduce the initial stresses in the frame due to shrinkage on drying out, and possible uneven settlement as the frame becomes loaded. It should be noted that the overall length of the main spine of the building is 407 feet.





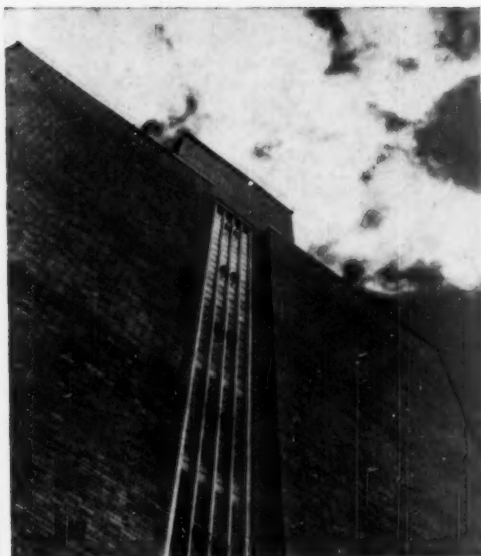
Entrance Doors.



Detail of one Entrance Hall.

CHARLES HOUSE, KENSINGTON, W.

## CHARLES HOUSE, KENSINGTON, W.



Detail of staircase window.

The work carried out in reinforced concrete included both column and wall foundations, retaining walls, coal bunkers, frame, solid floors and roofs, staircases and the water storage tanks totalling 33,000 gallons capacity at roof level. The main walls are of brick; partitions of foamed slag blocks. The roof is insulated by a screed of foamed slag concrete, finished with a built-up covering with cement paving. The windows are of steel, designed to be cleaned from inside, with pressed steel sills. Copings, cornices, window heads and similar elevational features, are of reconstructed Portland stone. The columns to the main entrances are of Griotte marble.

The internal finishes and equipment are conventional, in so far as the restrictions in the use of timber would allow. Wood blocks floors are confined to the canteens. There are one goods and ten passenger lifts, giving an unusually good service. The passenger lifts run at 350 feet per minute, and are provided with fully automatic control, including a mechanical brain which selects and stores calls, so that these are answered in correct rotation by the nearest lift going in the desired direction. Heating is by low-pressure hot water with normal type radiators on a one-pipe system. The heating plant consists of the three heating boilers and one domestic boiler for providing hot water during the summer months. These are water-tube boilers of very high efficiency, and are fed on solid fuel by automatic underfeed stokers drawing coal from hopper-shaped bunkers, capable of holding three weeks' supply of fuel.

The electrical equipment includes two sub-stations feeding three rising mains, each in triplicate for lighting, power and lifts respectively. The lighting and power risers are of solid copper bars, providing three phases throughout, thus simplifying the problems of future additions and alterations. A system of telephone ducts is provided around the external walls above skirting level.

The canteen kitchen, equipped by the Ministry of Works, includes an extract system of ventilation, which discharges the cooking smells through a masonry duct at roof level. The kitchen is designed to provide 2,000 meals a day.

The General Contractor carried out the cross partitioning and other occupational services required by the incoming government departments, with the exception of light fittings and certain specialised items which were ordered by the Ministry of Works direct.

Architect : Arthur S. Ash, F.R.I.B.A.

Consulting Engineer : W. V. Zinn, B.Sc., M.I.C.E.

General Contractors : Rowley Bros. Ltd.

Reinforced Concrete Frame—Sir Robert McAlpine & Sons.

Aluminium and Anodized Balustrading—S. W. Farmer & Son Ltd.

Ash Hoist and Jib Crane—Vaughan Lift Engineering Ltd.

Bricks: Facing—Proctor & Lavender Ltd.

Cement Glaze Finishes to Lavatory Walls and Partitions—Robbs Cement Enamel Finishes Ltd.

Electrical Installation—T. Clarke & Co. Ltd.

Entrance Doors—J. Starkie Gardner Ltd.

Floors: Wood Block—Vigers Bros. Ltd.

Flooring—Semtex Ltd.

Glass Bricks—Pilkington Bros. Ltd.

Glazing—Aygee Ltd.

Heating—Norris Warming Co. Ltd.

Hot Water Boiler Plant—La Mont Steam Generator Ltd.

Ironmongery—W. N. Froy & Sons Ltd. The Essex Guild.

Joinery—D. Burkle & Son Ltd.

Lifts—Waygood-Otis Ltd.

Lightning Conductors and Flagstaff—J. W. Gray & Son Ltd.

Marble Columns—J. Whitehead & Sons Ltd.

Paints and Distempers—The Temple Varnish Co. Ltd.

Plumbing—Dent & Hellyer (Sanitation), Ltd.

Reconstructed Stone—Empire Stone Co. Ltd.

Roofing—Excel Asphalte Co. Ltd.

Sanitary Fittings—W. N. Froy & Sons Ltd.

Staircase Windows—Lenscrete Ltd.

Terrazzo—Standard Pavement Co. Ltd., The

Windows: Metal—Crittall Manufacturing Co. Ltd.



A typical office.



## M.O.H. Housing Medal Awards

A list of the Ministry of Health awards for the best designed post-war urban and rural housing estates in England and Wales was given in A. & B.N., August 4. Of the thirty-five schemes listed, thirty-one are illustrated on this and the following eight pages. In two cases permission to reproduce was withheld by the architect and in the remaining two, photographs are not yet to hand. An exhibition of all the designs is to be held at the Royal Institute of British Architects on September 27.

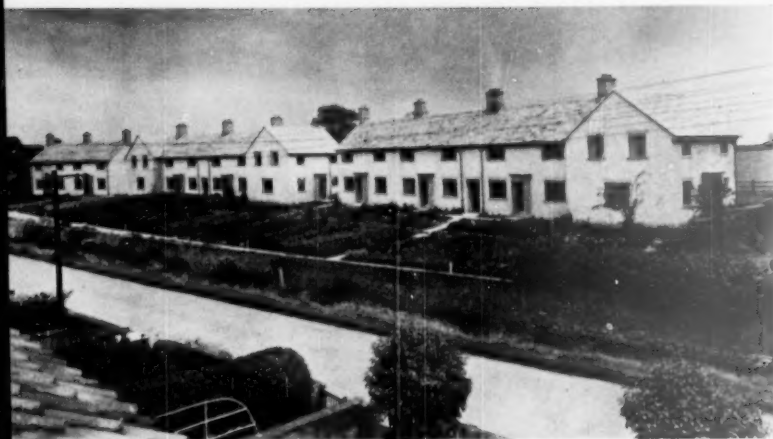


### NORTHERN REGION

1  
**Alnwick R.D.C.**  
Hipsburn, Lesbury  
REAVELL & CAHILL, F.R.I.B.A.

2  
**Bellingham R.D.C.**  
Bellingham  
DIXON & SON

3  
**Brandon & Byshottles U.D.C.**  
Esh Winning  
FRED HEDLEY, A.R.I.B.A.



## EAST & WEST RIDING

1

### Ripon & Pately Bridge R.D.C.

Bishop Monckton

CHARLES W. NEEDHAM,  
F.R.I.B.A.

2

### Leeds C.B.C.

Ireland Wood Estate,  
CookridgeR. A. H. LIVETT, O.B.E.,  
A.R.I.B.A.

## NORTHERN REGION (con.)

### Whitby U.D.C.

Ropery and Green Lane  
PEACOCK & BEWLAY

2

## WALES

### Llanrwst U.D.C.

Caer Felin

S. COLWYN FOULKES,  
M.Arch., F.R.I.B.A.



NORTH  
MIDLAND  
REGION

1  
**Billesden R.D.C.**  
Hungarton  
CYRIL KEAY



2  
**Northampton C.B.C.**  
Dallington Fields  
JOHN L. MOMERSLEY,  
A.R.I.B.A.



3  
**Melton Mowbray U.D.C.**  
Asfordby Road and Nottingham Road  
CLIFFORD E. CULPIN,  
F.R.I.B.A.

4  
**Shardlow R.D.C.**  
Breadsall Hill Top  
T. H. THORPE & PART-  
NERS, F.A.R.I.B.A.





**EASTERN  
REGION**

**1**  
**Ipswich C.B.C.**  
Rushmere Hall Farm  
JOHN B. STOREY, A.R.I.C.S.



**2**  
**Loddon R.D.C.**  
Windmill Green,  
Ditchingham  
TAYLER & GREEN, F.R.I.B.A.



**3**  
**Downham Market**  
**U.D.C.**  
Retreat  
PETER BICKNELL, F.R.I.B.A.

**4**  
**Luton R.D.C.**  
Houghton Regis  
PETER B. DUNHAM,  
F.R.I.B.A.







**LONDON  
REGION**

**1**  
**St. Pancras M.B.C.**  
St. Pancras Way  
GRAHAM R. DAWBARN,  
C.B.E., F.R.I.B.A.

1



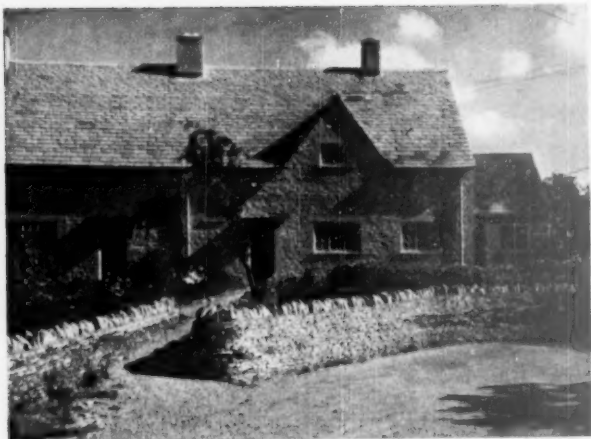
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**1**  
**Hampstead M.B.C.**  
The Wells House, Well Walk  
C. H. JAMES, R.A., F.R.I.B.A.

**3**  
**Banstead U.D.C.**  
Horsecroft Meadow.  
ARTHUR W. KENYON,  
C.B.E., F.R.I.B.A.

3



# **SOUTHERN REGION**

## **1 Witney R.D.C.**

Asthall

PETER B. DUNHAM,  
A.R.I.B.A.



## **2 Abingdon B.C.**

Fitzharris Farm

F. RUSSELL COX, F.R.I.B.A.



## **3 Beaconsfield U.D.C.**

Orchard Road

BURGESS, HOLDEN &  
WATSON (C. H. WATSON,  
F.R.I.C.S., L.R.I.B.A., & H.  
DESMOND HALL, A.R.I.B.A.)



1

# **SOUTH WESTERN REGION**

1

**Minehead U.D.C.**  
Quarry Close  
EDWIN GUNN, A.R.I.B.A.



2

# **MIDLAND REGION**

2

**Pershore R.D.C.**  
THOMAS R. BATEMAN,  
A.R.I.B.A., of Pemberton and  
Bateman

3

**Coventry C.B.C.**  
Monk's Close,  
D. E. E. GIBSON, A.R.I.B.A.



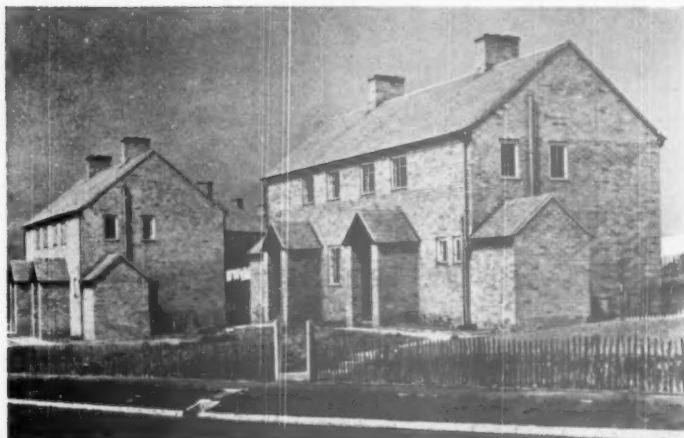
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NORTH  
WESTERN  
REGION

**1**  
**Birkenhead C.B.C.**

Woodchurch Estate  
HERBERT J. ROWSE,  
F.R.I.B.A.



**2**  
**Disley R.D.C.**

Bentside  
WILLIAM C. YOUNG,  
F.R.I.B.A.



**3**  
**Bollington U.D.C.**

Bollington Cross  
W. DOBSON CHAPMAN,  
P.P.T.P.I., L.R.I.B.A., and  
BERNARD TAYLOR,  
A.R.I.B.A. (Joint Award)



1 2

# SOUTH EASTERN REGION

1  
**Lydd B.C.**  
The Green  
CLIFFORD CULPIN,  
F.R.I.B.A.

2  
**Chichester R.D.C.**  
Chidham  
J. K. LAWSON, F.R.I.C.S.

3  
**Hollingbourn R.D.C.**  
Forge Meadow, Headcorn  
A. LAWRENCE FARMAN,  
F.R.I.B.A.



3

4  
**Worthing R.D.C.**  
Barrington Road  
C. COWLES-VOYSEY,  
F.R.I.B.A.



4

# Information Digest

## OFFICIAL PUBLICATIONS

- **B.R.S. Digests Nos. 19 and 20.** Issued by the Building Research Station, Garston, Watford, Herts. Price 2d. each.  
**No. 19.** The Reduction of Sound Transmission through Concrete Floors.

Impact sounds are usually generated on floors, rather than walls. Concrete floors, although forming a fairly effective barrier to air-borne sounds, are poor as insulators to impact sound. This digest describes some practical ways of obtaining improved sound insulation to concrete floors. Three methods are discussed, the use of a resilient surface, the floating floor and the suspended ceiling. A number of illustrations are given.

- **No. 20.** The Weathering, Preservation and Maintenance of Natural Stone Masonry (Part 1).

The properties of the various types of building stones are discussed in this digest. Factors affecting weathering and durability are given, with regard to both the composition of the stones—the choosing of a stone with due regard to its future behaviour in a building; and the suitable detailing in the construction, in order that a good stone may not be spoilt by faulty construction or the adoption of unsuitable methods of maintenance.

- **British Standard for Building Materials and Components for Building.** P.D. 1023. Addendum No. 3 1950 to B.S. Handbook No. 3, 1947 edition. Published by the British Standards Institution, 24 28 Victoria Street, London, S.W.1 Abbey 3333. Price 5s.

The standard covers the alterations and additions to British Standards from January 1, 1949. Summaries of new British Standards are given, together with revisions and amendments to summaries of standards in Handbook No. 3, and to Addendum No. 2.

- **National Building Studies No. 8.** "Mortar for Brickwork, Block Construction and Masonry." Published by H.M.S.O., York House, Kingsway, W.C.2. Price 1s.

The bulletin discusses, first the properties that are required in a mortar, and then gives recommendations by which these properties can be obtained. The recommendations cover the mix properties to be employed with different classes of mortar and also the types of mortar suitable for use for specific purposes. Recommendations are based on practical experience and experimental trials.

- **Post War Building Studies No. 28.** Precautions against fire and explosion in underground car parks. Published by H.M.S.O. Price 1s.

The general question of fire and explosion in underground car parks is reviewed and recommendations are given which should afford guidance to those who are concerned in formulating regulations for their construction and use.

- **Ministry of Health Interim Report.** Deterioration of Cast Iron and Spun Iron Pipes. Published by H.M.S.O. Price 3s.

In recent years evidence has accumulated concerning the rapid external corrosion of cast iron and spun iron pipes used for water supply, especially those laid in clay subsoils containing sulphates. The interim report covers the scientific and technical aspects of corrosion, deals with the extent of the problem and its actual implications and suggests measures for protecting pipes in areas where the soil formation is known to be corrosive.

- **Eighty-sixth Annual Report on Alkali, etc. Works.** Published by H.M.S.O. Price 1s.

The problems raised in dealing with fires which break out in abandoned soilbanks are discussed in the report. A number of recommendations are laid down.

## CONCRETE CONSTRUCTION:

- **Questions and Answers on Concrete Road Construction.** Issued by Cement and Concrete Association, 52 Grosvenor Gardens, London, S.W.1. Sloane 5255. Free.

The questions in this publication were selected by a committee elected to advise on researches to be carried out on the improvement of concrete roads, in respect of durability and surface characteristics. The answers given should be of assistance to road engineers. A list of manufacturers of machinery suitable for use in concrete road work is included.

- **Concrete Shell and Barrel Roofs Second Edition.** Cement and Concrete Association. Free.

This book contains drawings and photographs of a number of examples of modern buildings where concrete shell and barrel roofs have been used. The book is attractively presented and will be of interest to the architect.

## MATERIALS

- **Z.D.A. Abstracts.** June, 1950. Zinc Development Association, Lincoln House, Turl Street, Oxford. Oxford 47988. Free.

Z.D.A. abstracts present each month a review of recent technical literature on the various uses of zinc and its products, together with other material of interest. The purpose of each abstract is to tell the general reader what the original article is about, and to enable the specialist to estimate its importance. A section on corrosion is included in the June issue and should be of interest to readers.

- **Adhesives for Industry.** Aero Research Ltd., Duxford, Cambridge. Sawston 187. Free.

The nature and properties of synthetic resin glues are explained in this book, which should be of interest to architects who have not yet had occasion to specify adhesives of this type.

- **Painting with a Policy.** Associated Lead Manufacturers Ltd., Ilex House, Minorities, London, E.C.2. Royal 4525. Free.

The booklet sets out briefly the essentials of modern painting technique and planning, and is both interesting and informative. Photographs show a variety of buildings, repainted during 1949, on which white lead paint was used. Copies are available on request.

## HEATING AND LIGHTING

- **For Heating All Types of Buildings: List No. 94.** The Spiral Tube and Components Co. Ltd., Osmaston Park Road, Derby. Derby 46067 8. Free.

Various types of unit heaters are shown and notes are given as to their application, installation and maintenance.

- **For Air Heating: List No. 95.** The Spiral Tube and Components Co. Ltd. Free.

This pamphlet is divided into two sections, one, an introduction with general information about the heaters, and two, a section giving technical data. Photographs of the various air heaters are given, together with drawings, dimensions and temperature rise charts.

- **A Measuring Diagram for Daylight Illumination.** By Percy J. Waldram, F.R.I.B.A. Published by B. T. Batsford Ltd. Price 5s.

Copies of the measuring diagram in common use before the war for all problems in the natural lighting of interiors are made available in the brochure, together with the description and instructions for setting it out if desired. The diagram is for the measurement, predetermination and representation of natural lighting.

## MISCELLANEOUS

- **A Short History of Selwyn House.** Pilkington Bros. Ltd., St. Helens, Lancs.

This book has been published privately by Pilkington Brothers Ltd., the present occupiers of Selwyn House, and gives a brief history of the house and its site from 1543 to the present day.

- **The Preservation of our Churches.** The Incorporated Church Building Society, 7 Queen Anne's Gate, Westminster, S.W.1. Price 2s.

The Society gives its annual report for 1949, in this book, together with impressive lists of grants made during the year to churches in need of repair which indicates the extent of the good work being done by the Society. A section is included showing a number of photographs of churches in a dangerous or neglected condition, due to lack of maintenance or badly executed repairs. This pamphlet should be widely read by those concerned with the upkeep of our ancient church buildings.

## ALSO RECEIVED

- **Tube Works Gauges and Gauging Practice.** Stewarts & Lloyds Ltd., Brook House, Upper Brook Street, London, W.1. Mayfair 9861. Price 5s.

- **1889-1949. Diamond Jubilee.** William Prestwich & Sons Ltd., Dronfield, Derbyshire. Free.



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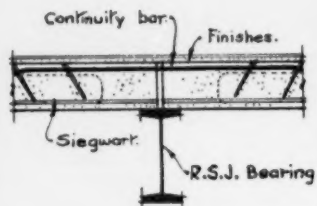
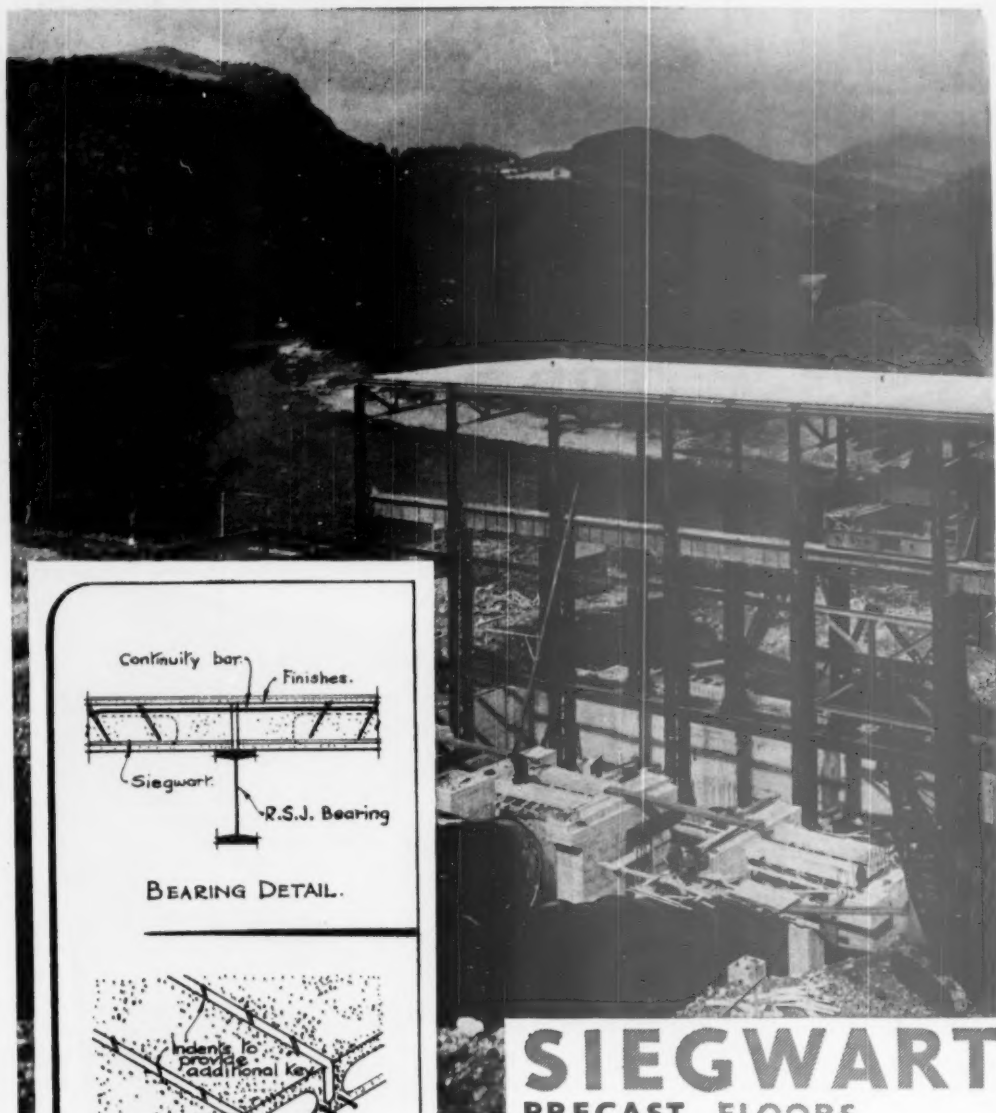
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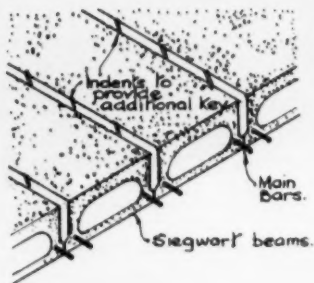
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# NEWS of the BUILDING INDUSTRY

The continuance or cessation of "Incentive Payments" in the building industry is currently under discussion by the representatives of employers and operatives. It is also known that the Government, through the Minister of Works, is pressing for the continuance of incentive payments in the industry.

Much has been said and written on the great economic values of incentive payments, both in regard to the reduction of costs and as a major step to the solution of the housing problem particularly.

Not so much has been heard of the operative's point of view regarding this very vital question. The public are still left mainly with the impression that the operative's known opposition to incentive payments is simply blind, obdurate prejudice to progress.

The operative's opposition to (and fears of) incentive payments are rooted however not in unreasoning prejudice, but in a deep knowledge of the circumstances of his industry, his age-long relations with the employers, the effects of piece-work on his conditions, and standards and quality of building, and finally in his knowledge of the facts that acceptance of incentive payments does not necessarily reduce costs, or speed the solution of one of our greatest social problems, the housing shortage.

It is not within the scope of this article to go into the technique of the industry, profits and wages relations or building programmes, although all of these have a direct bearing on the question under discussion.

I merely want to put on record some facts that have as yet received inadequate publicity.

Piece-work and incentive payments are synonymous in the mind of the building operative. No doubt it is possible to show scientifically that this belief is wrong (Sydney and Beatrice Webb went to great length to show the essential differences between piece-work and other forms of payment), but the fact remains that the operative sees little difference between the two.

Piece-work in the building industry has traditionally meant that a "piece-master" contracts to produce a given quantity of work (e.g., rod of brick-work, squares of roofing or flooring, yards of plaster-work, etc.) at a fixed price. Furthermore, he does this on a "labour only" basis. The results have been peculiar and tragic. For instance, a contract which may have been secured in apparently fair tender, and based on recognized rates and conditions, is sublet in its major parts on a competitive basis, which knows no standards.

Cut-throat competition is thus transferred from the main contracting field to that of sub-contract for labour only.

## AGAINST INCENTIVES

*Since it was clear from the recent conference of the A.U.B.T.W. that a section of operatives are opposed to the operation of incentive schemes but not clear why they are so opposed, "The Architect and Building News" invited Mr. J. Ryan, London District Organizer for the Bricklayers' and Masons' Union (A.U.B.T.W.), to present the case for the opposition. In this article Mr. Ryan states his case.*

*Mr. Ryan has had personal experience of negotiating Incentive Payment Agreements over the past two and three-quarter years.*

*The Editor does not necessarily agree with opinions expressed in contributed articles to this forum of opinion. Correspondence on this subject will be welcomed.*

The result on such work is unlimited hours at flat rates, complete disregard of welfare conditions (which cost money), complete disregard of all safety precautions, the results of which are written in the appalling accident statistics relating to the building industry (reflected in a more human way in the grief and poverty of building workers and their families, who are the victims of such accidents).

There is too the relentless and fierce opposition of such piece-masters to trades union organization because of what trade unionism means to the system under which they carry on their activities.

Before the late war the building industry was notorious for its high level of bankruptcy. (This trend is again asserting itself.) Trades union officials know what this means in loss of wages for work done by the building worker. The legend that the employer advances the wages to the worker has been well exposed in building. When a piece-master failed to turn up with the men's wages on Friday night, the workers would discover that they (the workers) had advanced two weeks' work for which no wages were forthcoming. The toll runs into colossal figures.

Finally, piece-work, as understood in building, has involved the shoddiest kind of building, and the degrading of good craftsmanship.

The evidence stands yet for all who care to see, in the countless speculative estates throughout Britain. A great body of evidence could be gathered on this point from the thousands of purchasers of speculative built houses.

Such is the background to the building operative's hostility to piece-work, and to-day, to incentive payment.

Nevertheless, in 1947, agreement was reached, after a ballot amongst organized workers, to introduce incentive payments into the building industry for an experimental period of two years. Those two years are long finished. Incentive payments still continue, although discussions are now

proceeding, as stated in the beginning of this article.

During their 2½ years of operation, incentive payments in various forms have become more widespread, but at the same time feeling has hardened against their continuance amongst the ranks of building workers.

Why is this?

First because only a minority of building employers have introduced carefully thought-out bonus schemes, whose mechanics can be followed by the operative. This minority represents the bulk of the leading contractors.

Second, because despite the many assurances given to the operative that bonus payments did not mean piece-work (assurances given at meetings in which the present writer played a not inconsiderable part), yet piece-work in the shape of sub-contracting for labour only, with all the old evils, is now more widespread than ever.

What is worse, from the workers' point of view, is the fact that piece-work has now invaded the field where once it was least evident, that is, in local authority building.

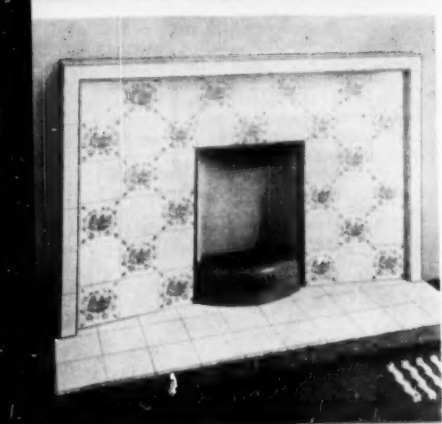
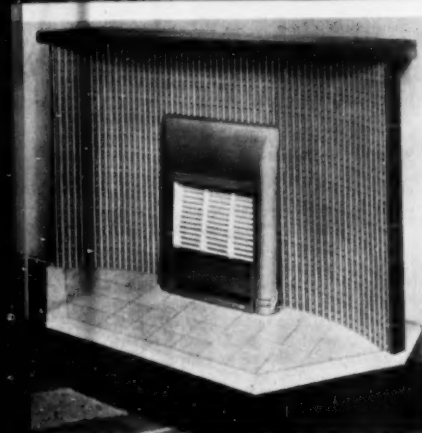
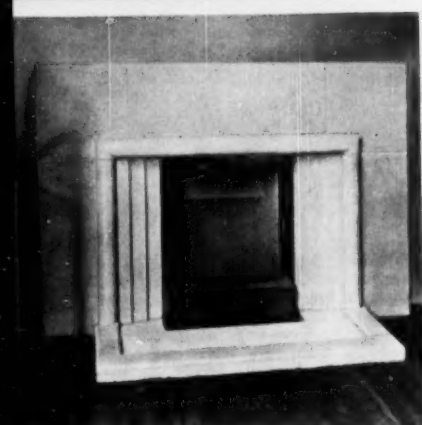
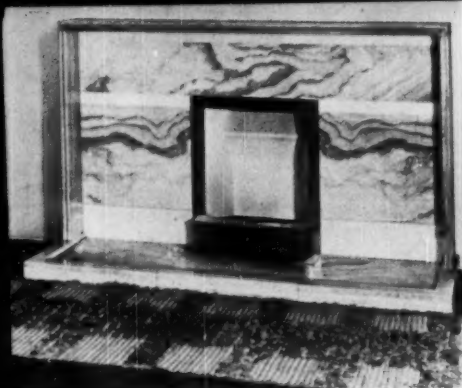
Third, because the off expressed fear, prior to the acceptance of incentive payments, that once the practice was established, targets would be lifted until ultimately all that would remain would be an increase in output, without an increase in pay, is already beginning to take material shape.

Fourth, despite the considerable numbers of workers engaged on work which carries bonus payments, there is a very large section which receives no such payments. The result is that the bonus payments earned by one section are being used as a deterrent to an increase in the present basic rates. Bonuses thus penalize those who for one reason or another do not receive such payments.

Two important arguments were used to justify the introduction of incentive payments.

The first was that costs would be brought down to the benefit of the tax-

(Continued on page 238)



## STRUCTURE A4/1 FIREPLACES

Available from the same firm as the fireplaces shown on A4/2, A4/3, A4/4, this fireplace was designed in 1949 by John Grey, F.R.I.B.A. Overall dimensions are 47 in wide by 40 in high with 20-in hearth projection. The grate illustrated is for an 18-in open fire with rustless steel frame, fret and hearth plate. Any type of fire can be fitted to order. The surround is in Botticino, Loupinnes and Lunel Notre Dame marbles. The unit is available for export.

## STRUCTURE A4/2 FIREPLACES

Available from the same firm as A4/1, A4/3 and A4/4, the fire surround illustrated, designed by John Grey, F.R.I.B.A., in 1949, is of Clipsham and Bath stones. The illustration shows an 18-in fire with rustless steel frame, fret and hearth plate, but can be fitted with any type to order. Overall dimensions are: 61 in wide by 42½ in high by 19½-in hearth projection. This model is considerably cheaper than A4/4 and is also available for export.

## STRUCTURE A4/3 FIREPLACES

Available from the same firm as the fires and surrounds shown in A4/1, A4/2 and A4/4. This model, designed by R. Y. Goodden, A.R.I.B.A., in 1948, is suitable for use with any type of fire. The mantel and hearth are in 4-in. by 4-in. tiles. The vertical face is of 6-in by 1-in hand-decorated strip tiles.

## STRUCTURE A4/4 FIREPLACES

Available from the same firm as the fires and surrounds shown in A4/1, A4/2 and A4/3. The surround illustrated can be fitted with any type of fire, that shown being 18-in open fire with rustless steel frame and fret. Faced with 6-in by 6-in hand-decorated tiles, with a surround and hearth of plain tiles, this design by R. Y. Goodden, A.R.I.B.A., first produced in 1948, is the cheapest of the four models illustrated. Dimensions are: 60 in wide by 41½ in high with 18-in hearth projection.

THE ARCHITECT AND BUILDING NEWS,  
AUGUST 25, 1950

## MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor,  
The Architect and Building News,  
Dorset House,  
Stamford Street, S.E.1.

Please mark the envelope MOSAICS.

## \* INTEREST \*

DETAILS OF ALL BUILDING COURSES available at Technical Colleges and Schools in the London Region are given in full in a memorandum just published by the L.M.B.A. This publication should be of considerable value, not only to those firms employing apprentices, but to all members of the Building Industry in London.

Copies of this memorandum, which contains details of courses suitable for everyone from apprentice craftsmen to senior managerial and supervisory staff, are available free on application to the L.M.B.A., 47 Bedford Square, W.C.1.



This prototype telephone box was seen at the Holoplast works when the first press visit to the factory took place on Tuesday, August 15th. Similar boxes, made of Holoplast, are now installed in the new House of Commons. The press visit is reported on page 235.



### Brief Biographies

## MR. RICHARD R. COSTAIN

Mr. Richard R. Costain, C.B.E., Chairman and Joint Managing Director of Richard Costain Ltd., who in May last was elected Chairman of the Harlow Development Corporation, hails from Liverpool and has the "family firm" background so frequently found in the building industry. His present firm is an offshoot of the firm his grandfather founded in Liverpool in 1863, though it

severed its connection with the parent company when it became a public company in 1935.

Mr. Costain is a trained craftsman. After leaving Merchant Taylors' and Rydal Schools, where he was educated, he "did time" on the bench as a joiner. Then he became a bricklayer and after a course in architecture in Rome, he was sent to London in 1922 to extend the family fortunes in the capital. He did this to some purpose in both building and civil engineering, and before long the firm added the overseas markets to its territory, among its first jobs being one of the most difficult sections of the Trans-Iranian Railway. Since then, and notably since the end of the war, the overseas side of the firm's activities has been steadily developed and it now has branches in the Middle East, Turkey, Nigeria, Uganda and Northern and Southern Rhodesia. Since its establishment in 1935, the firm has done over £40,000,000's worth of work overseas.

At present the firm is responsible for several important jobs in London, notable among them being the building of the river wall on the South Bank of the Thames between County Hall and Waterloo Bridge, the Dome of Discovery for next year's Festival of Britain and the new Government offices in Whitehall. Its most spectacular achievement before the war was Dolphin Square, which is believed to be the biggest single block of flats in Europe, and which Mr. Costain believes points the way to a solution of the housing problem and the abolition of slums in big cities.

During the war, while his firm was engaged in building aerodromes, munitions factories and caissons for the Mulberry Harbours, Mr. Costain himself was at the Ministry of Works. He joined it early in 1940 as Deputy Director of Emergency Works under General K. C. Appleyard, and while there he was responsible, with General Appleyard, for arranging the first discussions with the L.M.B.A. which led to the establishment of the W.B.E. & O. scheme. In 1943 he was made Deputy Director of Works under Sir Thomas Bennett, when the Department was responsible for over £50,000,000's worth of building a year. He retired from the Ministry in 1945 and, in 1946 was awarded the C.B.E. for his services.

His firm joined the L.M.B.A. in 1935 when it became a public company, and Mr. Costain has been a member of its Council since 1946, serving in turn as Junior and Senior Vice-President. He is a fellow of the Institute of Builders.

SHORTAGE OF TIMBER continues to present designers with the problem of finding substitutes which will compare on grounds of strength, appearance and cost. Not an easy problem but one which is appreciated at the factory of Messrs. Holoplast, Ltd., at New Hythe, Kent.

On Tuesday, August 15th, the first press visit to this factory took place to study the methods of manufacturing the firm's products. New to the range is a self-coloured buff sheet.

In the absence of the chairman, ill with pneumonia, and the inventor, who had broken an arm the previous day, the party was conducted on a detailed tour of the factory by the joint managing director, Mr. G. W. Raybould. Photographs and a description of the manufacture of this firm's structural wall and corrugated roof sheeting will be published in the Factory Processes Series of *The Architect and Building News* in September.

The tour of the works included the first inspection of a new type of building which is being erected at the factory to serve as design and drawing offices. The building is rectangular and covers an area of 1,500 sq. ft. External walls and internal partitions are of 1½-in. Holoplast panels. The external walls are loadbearing and carry the trusses which are external to the low-pitched roof. The sectional cavities of the external panels are filled with insulating material. The ceiling, also of standard Holoplast panels, is suspended from the external trusses. This provides a flush under-surface which enables the internal partitions to be placed in and subsequently moved to any position, thus allowing complete flexibility of planning. The panels are jointed with mastic compound and the joints in this instance are covered with aluminium cover strips. The building has been designed by the firm's architect Mr. Pagani and is scheduled for complete erection from the foundations by four men in three weeks.

First and still used for internal and external ship construction, this material is now being increasingly developed for a number of uses in the building industry. The standard panel, 8 ft. x 4 ft., has a plain brown finish, polished or semi-matt. The number and type of finishes is continually under development for colour and texture.

The coloured sheets may be classed in two groups, (a) applied colour and (b) incorporated colour. The range of applied colours, which are sprayed on and stoved in an infra-red kiln, is wider than that of the incorporated colours.

Perforated acoustic panels are now being incorporated in the Royal Festival Hall.

Attractive is a mottled texture finish which is obtained by making use of the varying resistance to pressure of the basic pulp material from which the sheets are made.

The ability of the material to withstand weather and resultant warping was illustrated by a pair of double external doors 1 in. thick which are still true—though unbraced in any way after two years' exposure.

Veneered finishes in considerable variety were also shown. These may be either incorporated in the pressing process or applied.

The factory which went into production in 1944 is efficiently planned. All processes are carried out by unskilled labour. Production, aided by the careful design and layout of the machinery, is continuous. The time taken for one panel to pass through all processes from impregnated paper to finished panel is one hour.

The basic raw materials for this product are kraft paper and phenol formaldehyde water-soluble resin. The saving of timber in an article which can both for appearance and strength take the place of timber for many purposes is therefore considerable. In making comparisons of cost the lightness, thinness, resistance to rot and fire, ease of handling, must all be taken into account.

THE BOARD OF TRADE announce the publication, on August 21st, of the Imported Softwood Prices (Amendment) Order, 1950, which is to come into operation on the same date. The Order makes no price changes; it provides alternative descriptions for certain types of North American softwood, adds prices for certain descriptions of softwood not already covered, and makes certain alterations in the classification of Finnish Redwood.

DIFFICULTY IN OBTAINING 5-amp flush shuttered socket outlets and 5-amp flush switched shuttered socket outlets for prefabricated houses has been reported to *The Architect and Building News*. A Manchester firm, whose name will be supplied on request, informs us that they have these sockets available for immediate delivery.

THE WORKING PARTY REPORT was the subject of discussion at a branch general meeting of the Institute of Quantity Surveyors in June. The report of the discussion contained in the Journal of the Institute for August shows that there was



## INFORMATION AND CATALOGUES RECEIVED

- A digest from W. Edwards & Co. (London), Ltd., provides a useful index of the firm's available high vacuum equipment, pumps, gauges, etc., for engineers and scientific workers.
- B.S. 1589: 1950 deals with Thermal Insulating Materials. This B.S. is approved by the Solid Fuel Industry Standards Committee and endorsed by the chairman of the Engineering Divisional Council. The B.S. does not purport to include all the necessary provisions of a contract. The materials covered are plastics composition, flexible and loose-fill thermal insulating materials for central heating and hot and cold water supply installations. This specification is complementary to B.S. 1334 for pre-formed insulating materials since it deals with the same temperature range.
- An illustrated booklet from Building Plant Hire (On Site), Ltd., describes in detail the "on site" building machine. This machine has been designed to enable in situ continuous cavity or solid walls to be constructed in concrete with semi-skilled or unskilled labour. One hundred houses are at present being erected by this method for the L.C.C. at St. Mary Croy. It is claimed that 100 houses can be erected in just over three months by this system, using 45 men.
- From I.C.I., Ltd., comes a new pamphlet giving advice on the application and treatment of "Faspit"—retarded hemi-hydrate plastic. The advice is based on experience gained from various parts of the country.
- A new means of providing low-cost production of printed catalogues, lists, etc., is described in a well-produced booklet issued by Remington Rand, Inc., Export Division, New York. The new system, called "Flexoprint," is said to eliminate expense and delays of metal typesetting as copy is set out by regular office typists on normal or electric typewriters on special die-cut cards. These are attached to metal panels which are then locked up and reproduced either by photolithography and offset or by photo-engraving and letterpress.
- From Redfern's Rubber Works, Ltd., Hyde, Cheshire, comes a pamphlet giving particulars of their rubber flooring, matting, etc., which are to be shown at the Brewers Exhibition.
- The British Iron and Steel Research Association have issued the first report of Joint Technical Panel NP2 on points for Underwater Service on Steel.

This report gives the detailed results of tests made on 68 specially formulated anti-corrosive compositions. The principal aims were a study of the effect of changes in the medium and an investigation into the influence of small changes in pigmentation on the protective properties of two of the best compositions from earlier experimental work.

While the report is chiefly concerned with naval and mercantile work the findings may be of interest in the building world.

## INTEREST continued

disappointment with the result of the report. The work of the Quantity Surveyor seemed to be misunderstood and there were no comparisons of the cost of work done by contract and by direct labour. Nor apparently was the fact that the prime purpose of pricing a bill of quantities was to arrive at a competitive tender and to provide a basis for valuing variations appreciated by the Working Party.

One member said that if the report succeeded in getting the architect to give all his information at the outset of the contract the time and money spent would be worth while. Contracts were being continually disorganized because architects did not seem able to decide all details in advance. He thought a form of contract ought to be considered which would tie down the architect just as the other parties were tied down at present.

In reply to this another member said that when criticizing the architect it should be remembered that Planning Controls and Licensing Regulations meant that work could not be planned beforehand.

CARTER TILES, as everybody knows, are made at Poole, Dorset. In our issue of August 4th we described a new tile kiln in operation at the Bootham Tile Works of J. H. Barratt, Ltd., Stoke-on-Trent, and stated that this company makes Carter tiles.

Test this leads to misunderstanding we have been asked to point out that Carter tiles are made at Poole. The Barratt factory is operated as one of the Carter Group of Companies.

AN IMPROVED TYPE of sematic decorative tile in richer colours and with claimed higher resistance to wear and abrasion than the standard type is a feature of the display at Messrs. Dunlop's New Bond Street showrooms.

Various floor surface protectors for the legs of furniture, including hardwood cups and rubber sheaths for tubular furniture, are also to be seen.

THE BRITISH COLOUR COUNCIL will illustrate various phases of its activities at the Industrial Finishes Exhibition to be held at Earls Court from August 30th to September 7th.

The Council has many members producing various types of industrial finishes and will show how colours are co-ordinated between various sections of industry.

The practical system from which all colours are derived will be illustrated and the effect of technical requirements on the production and selection of colours will be demonstrated.

The effect of artificial light on colours will be demonstrated with tungsten and various types of fluorescent light source. Another feature will be the application of colour for safety and identification purposes. A. Foreman makes reference to the latter problem in his article below.

The recently issued Dictionary of Colour for Interior Decoration will be shown.

WHAT AND WHERE in last week's issue showed new offices in course of erection on the site of the bombed Hall of the Salters' Company in St. Swin's Lane and Walbrook in the City of London.

## GOOD, BAD OR INDIFFERENT?

By A. FOREMAN

No. 8

### Identification of Services

I have recently been watching some alterations to the services in a very large industrial plant and its associated buildings. The services involved were as numerous as I have ever experienced in one set of buildings. The alterations, of course, involved adjustments and changes to them all. I was very surprised to find in so large an organization that no steps had ever been taken to indicate on the innumerable pipes and conduits, often in dark and very dirty ducts, what each contained so that an enormous amount of time had to be spent in tracing back each line to its source.

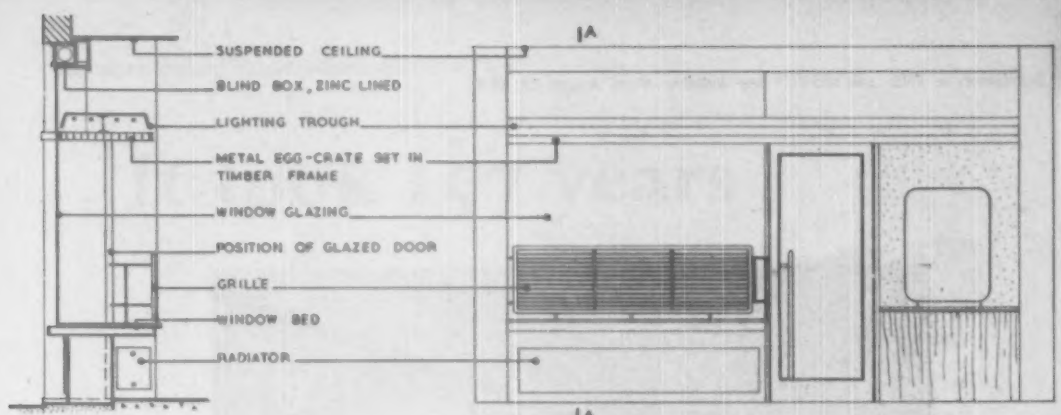
It is so easy when installations are made to attach either coloured or varied shaped tags on the very small sized pipes and to paint bands of colour on the larger diameter ones to indicate the contents of each; a record of the markings can then be kept in the office of the chief engineer, housekeeper or manager for future reference. It should be borne in mind that colours alone are not absolutely reliable as many people are colour blind and also because colours tend to change in the course of time. Each sub-division of each

service needs to have letters, words or a further band of colour on the tags or bands of colour to give precise information.

Any lettering put on pipes must be related to the size of the pipe or its covering, if any, as you can only see clearly a small proportion, probably about one-quarter, of the circumference at any time. The letters must also be in a position on the pipe where they will be best seen from the position from which they are most likely to be viewed; this is a point not made clear in B.S. 617. The following table sets out sizes of letters in relation to pipe diameters which will be found to be satisfactory for normal conditions. Letters  $\frac{1}{2}$  in high are clearly visible at 15 to 20 ft if properly spaced

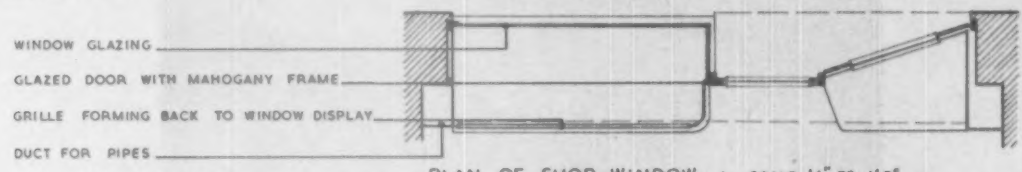
Outside diameter of pipe or covering in inches	Size of lettering in inches
up to $1\frac{1}{2}$	$\frac{1}{8}$
up to 2	$\frac{1}{4}$
up to 4	$\frac{1}{2}$
over 4	$\frac{3}{4}$



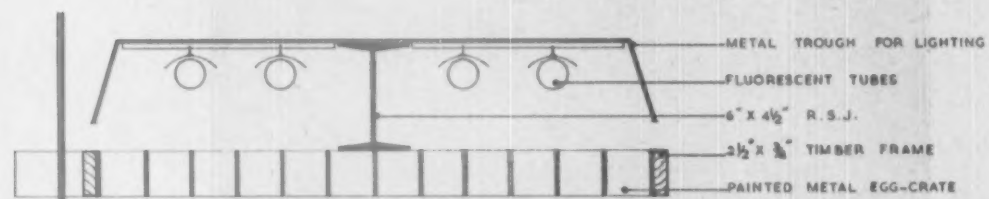


SECTION A-A

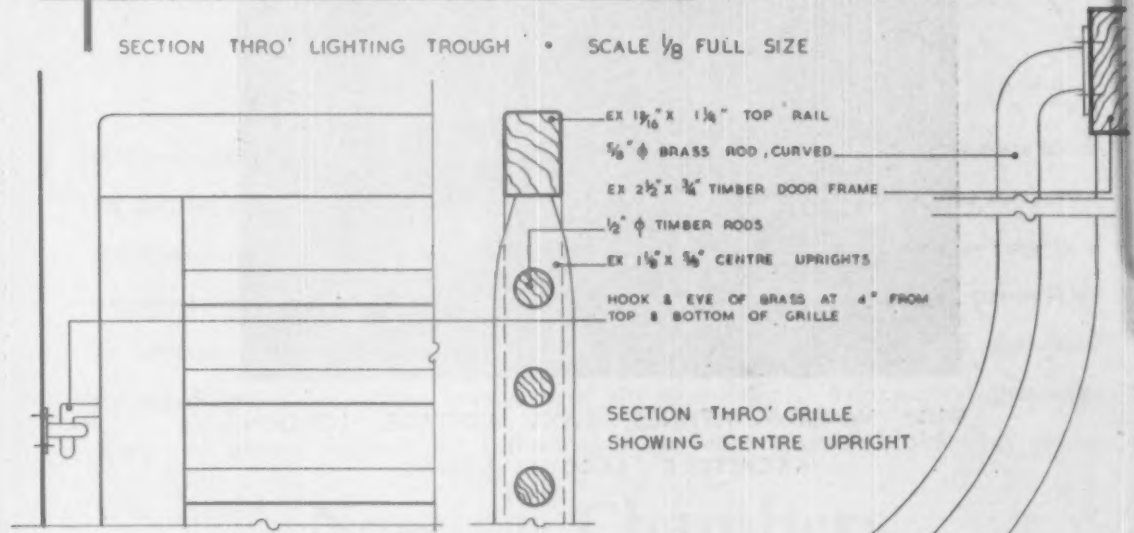
ELEVATION OF INTERIOR OF SHOP FRONT



PLAN OF SHOP WINDOW • SCALE 1/4" TO 1'0"

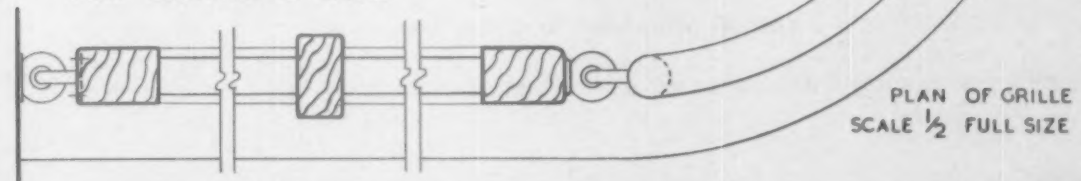


SECTION THRO' LIGHTING TROUGH • SCALE 1/8 FULL SIZE

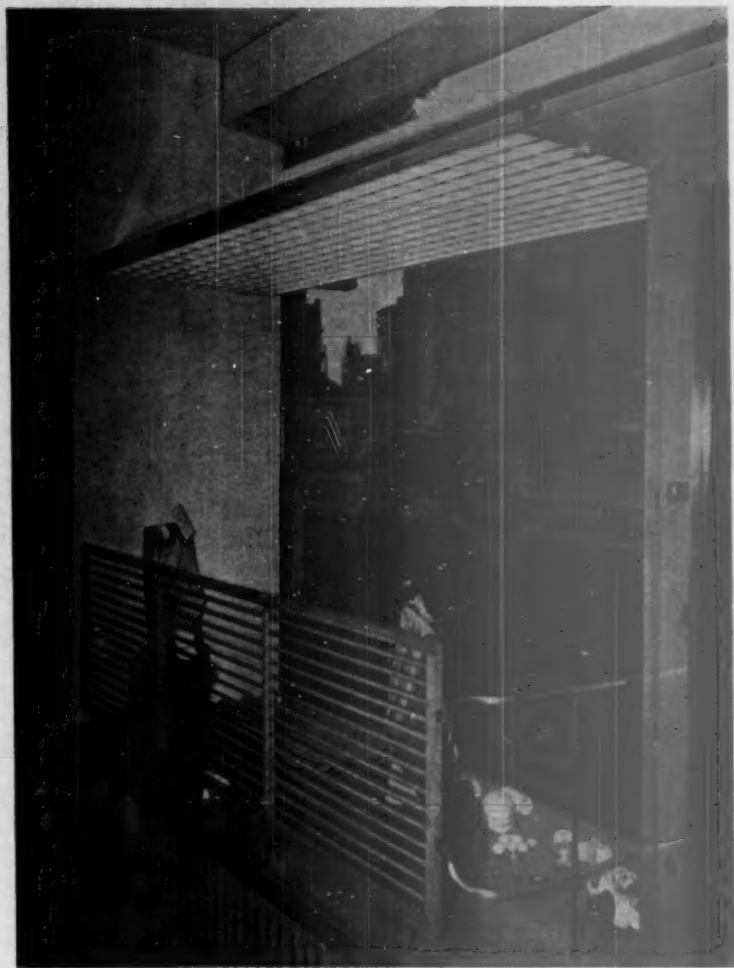


SECTION THRO' GRILLE  
SHOWING CENTRE UPRIGHT

PART ELEVATION OF GRILLE



PLAN OF GRILLE  
SCALE 1/2 FULL SIZE



SHOP WINDOW FITTINGS, SWISS COTTAGE, LONDON

ARCHITECT: JACQUES GROAG

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apart and in a contrasting colour to the background on which they are to be written.

Bands of colour need only to be long enough to receive the descriptive lettering for which three letters are usually wanted together with a short arrow when flow direction is important: thus a 12-in width band is usually adequate. Long bands of colour, say 18 or 24 in, are unnecessarily disturbing to colour schemes of the walls and ceilings against which they are placed. If secondary colour bands are used instead of letters, 8-in widths are enough with the secondary band 2 in wide. Pipes may of course be coloured for their full length if this suits the decorative scheme but normally the identification colour bands are applied at junctions, controls or

where the pipes pass through walls.

B.S. 617 sets out agreed systems of colours for primary services and lettering for detailed description and it is fairly comprehensive; the adoption of this B.S. would help both the building owners' own services staffs and more especially strangers called in to buildings to make repairs or alterations. This B.S. needs extension to cover some of the newer services in many buildings such as internal telephones, call systems and the like; in some industrial plants there may be some confusion if there are chemical pipe lines in addition to the normal services; thus some revision on this account is also needed.

Incidentally, it ought to be compulsory that electricians mark distribution boards

with the names or numbers of the rooms served by each fuse especially in those buildings, such as houses, which do not have staff electricians; the amount of time wasted by failure to do this small service must amount to thousands of man-hours per annum, quite apart from the annoyance caused in emergencies.

While talking of identification why does not some enterprising firm market some simple indelible tags for attachment to household water service control valves, such as the rising main, cold supply to hot water and to heating; small labels such as suggested would be of the utmost value to the householder if plumbers and heating engineers could be persuaded to attach them to the valves as they are installed.

## DOMESTIC ELECTRIC WIRING—No. 3

### Some Modern Tendencies

By T. C. Gilbert, M.I.E.E.

#### (3) Early Connection to Main Supply.

The recently published Ministry of Works booklet, "Machines for the Modern Builder," describes successful examples of the application of mechanization to house building, and some of the problems of mechanical aids still to be solved. The heavy petrol- or engine-driven machines are still the province of the large builder, in connection with the larger buildings as a rule, but many machines are found on housing sites, chiefly in the form of distributive methods for concreting work on foundations, and for handling bricks and mortar. Probably the greatest form of labour saving for the small builder would lie in the direction of small portable electrically-driven tools, of which a large variety is now available.

Many builders would welcome the extension of use of these small tools were it not for the fact that a supply of electricity for them is often a difficult and somewhat expensive matter. Usually a supply has to be taken from some central source, with temporary cables run all over the site, needing constant alteration to bring the supply to the points where the tools are required, and liable to all kinds of interruption and possibly damage in its wide ramifications. There is also some risk to operatives, if the protective earthing systems cannot be maintained intact, and constant attention to this important point, coupled with the necessity for frequent alteration of the temporary lines and wiring, often means the full-time employment of an electrician on the site. In the end, the builder may feel that the trouble and expense of maintaining supply makes the use of small portable tools hardly worth the effort.

The suggestion has therefore been made that all house installations should be capable of early connection to the main supply, which, with the connection of a few three-pin sockets to the wiring, would render available to the builder a supply of electricity in any house, with longish tool leads to nearby sites also. This would obviously require some arrangement with the supply authority in the way of metering such temporary supplies, although in one known case the point has been met by a computed charge for electricity for port-

able tools. The main problems in this proposal are: (1) to make the installation of a type that is suitable for early connection, and (2) the agreement of the supply authority to accept some lower standard of insulation in the installation if the required value cannot at once be ensured.

The Regulations requirements for insulation resistance are, for installations with rubber-insulated cables, 50 megohms divided by the number of outlets (points and switches), but if a value of 1 megohm is shown connection is usually made without question. When the conductors are surrounded with earthed metal, as with steel or other metal conduit systems, it is difficult to ensure that in the early days the insulation resistance will be as high as 1 megohm (1,000,000 ohms), owing to the very large number of leakage points between the conductors and the masses of metal, due to the presence of moisture from plaster or cement work, or actual condensation in the conduits themselves. It is often necessary, therefore, to wait some weeks for the partial drying out of the building before connection of the wiring to the main supply can be contemplated.

Clearly, therefore, in any attempt to secure early connection of the wiring the first step is to cut out some of the leakage paths, and this is most efficiently secured with the elimination of the metal conduit and boxes. With the use of one of the insulated wiring systems, previously described, a much higher value of insulation resistance is immediately possible, and it is rare that such an installation is not in a fit state to be connected immediately it is completed. With any of the systems named condensation is unknown, whilst moisture and dampness have very little effect on the cables, and the leakages set up by reason of corrosion or rusting are absent.

It is possible to go a step further, however, and use thermoplastic cables in place of rubber insulated cables. The commonest type of such cable is that known as P.V.C. (polyvinyl chloride) insulated, the covering being one of the synthetic resins which the manufacturers claim is non-ageing. The insulation is completely proof against actual water, even of high chemical content, also against all forms of common

chemical substances, oil and petrol; it is also non-inflammable. The Regulations permit a lower standard of insulation resistance when such cables are used.

12 megohms divided by the number of outlets in place of the 50 demanded for rubber insulated cables, but it must not be deduced from this that P.V.C. insulated cables are not as good as rubber cables. The thermoplastic cables are approved under all relevant regulations, and as their prices are competitive every advantage would appear to result from their employment in domestic installations.

Thermoplastic cables placed in ordinary steel conduits would show little, if any, advantage over rubber insulated cables as regards insulation resistance when the installation is newly completed, as the many and various leakage paths will still exist as between conductors and the metal conduits. If, however, such cables are placed in thermoplastic conduits, also manufactured from a P.V.C. compound, the insulation of the cables is actually reinforced by the conduits, with the result that regulation-approved levels of insulation resistance can be secured as soon as the installation is completed. As the cables are proof against moisture, and there is no risk of condensation in the conduits, then immediate connection to the main supply is possible, with the advantages accruing to the convenient use of portable tools as mentioned above.

A further advantage of thermoplastic cables is the easy drawing-in when grease or oil is used on the cables for the purpose. This is permissible, as oil has no adverse effect upon either cables or conduits, and its use has the effect, if anything, of still further improving insulation values by preventing the ingress of even small amounts of moisture into conduits. There can be no question of the efficiency and permanence of the earth continuity arrangements with these insulated wiring systems, as the earthing path is a special copper conductor drawn in with the circuit wiring to those points where it is required—that is, to three-pin sockets and cooker circuits. The lighting circuits may be run without such earthing conductors with the use of all-insulated accessories, such as switches and lighting fittings.



(Continued from page 233)

payer and the tenant. The second was that incentive payments were essential to get the increased tempo of production required to cope with the vast building programme, and particularly the housing programme.

On the first argument, the building operative is entitled to feel bitter and suspect that he has been duped, or at least considerably misled.

The facts, supported by official reports, and particularly the experience of the L.C.C., the greatest housing authority in the world, go to show that despite the reduction of building labour costs by between 10 per cent and 15 per cent on houses (in the case of the L.C.C. by over £60 per house) building costs and rents are still rising, and profits, where they are known, are also rising. No one has yet given, or is likely to give, a satisfactory explanation of this phenomenon. The building worker sees his increased efforts simply being transferred to building employers, materials manufacturers, vendors of land and lenders of money, while he, in common with others, must pay more in rent despite his unchallenged success in reducing the costs of that part for which he is responsible, the construction labour.

On the second argument, that increased speed of building is necessary because of the programme ahead, the facts are headlined with increasing frequency: the housing programme diminishes each year.

Each of the Government's economy programmes has singled out the building industry as the recipient of the largest slice of economy.

The building worker, despite the present considerable volume of work, can no longer see a vista of years of unbroken employment.

In fact, he sees quite well that he is being asked to do less and less building at a faster and faster rate.

With such fears ever-present it is little wonder that building workers see the continuance of incentives as a potent unemployment-making factor.

In furtherance of the arguments for incentives in the building industry, missions have visited the United States and comparisons have been made. Those comparisons are unfortunate for the cause of incentives for the following reasons:

(a) Piece-work or incentives have scarcely any place in American building practice, all payments being on a standard hourly basis; (b) the hourly rates in the States are from three to four times those of Britain (devaluation has considerably altered that ratio); (c) the highest that official reports put the difference in productivity between our two countries is 50 per cent in favour of America. The writer does not accept this statement on the figures given in the "Productivity Team Report." It is within his knowledge that the figures given for output on certain selected sites in U.S.A. can be outstripped by comparable selected sites in Britain. These facts are, of course, known to building employers.

But accepting the figures as given, an hourly rate of approximately four times a given amount for an output of  $1\frac{1}{2}$  times a given amount clearly indicates that the argument has gone wrong somewhere. All reporters on the American situation agree that the greatest incentive to output in the U.S.A. is the constant fear of unemployment, which is considerable.

Is this what the building operative must willingly accept?

Nothing need be said on regulations, or lack of them, governing safety and welfare in the U.S.A. building industry.

It is enough to say that these reports are having a quite opposite effect to what was intended, because they prove the contrary of what they are intended to prove.

I believe that if a ballot were taken of building workers on the question of retaining or rejecting incentive pay-

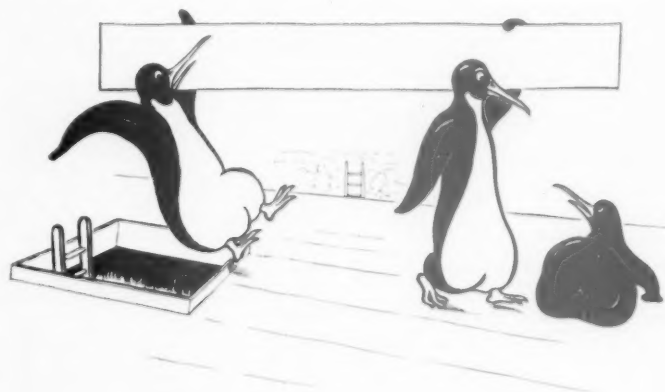
ments, they would reject them following their nearly three years of experience under the present agreement. The industry needs not incentives in their present form, but incentives that can guarantee (1) a high and stable basic rate; (2) a certainty of continuous employment, which presumes an expanding building programme; (3) the elimination of the sub-contractor for labour only; (4) the guaranteeing of the payment of wages and insurances, etc., at all times; (5) improved technical efficiency in the industry (not to be confused with sweat and blood); (6) the assurance that reduction in costs really reaches the consumer and is not simply an added portion of profits for the contractors and suppliers of materials.

These are just the immediate fundamentals that building operatives believe should take the place of the present inadequate and fumbling incentives.

J.R.

## ACCIDENTS IN BUILDING

In a film on safety precautions to be released in the autumn there is a shot showing two workmen lifting a door. The door has been used to cover an opening. As the two men raise the door and move off, the second man falls through the opening which he could not see. This actually happened because there was—(a) no warning notice, and (b) no guard-rail in accordance with the safety regulations.



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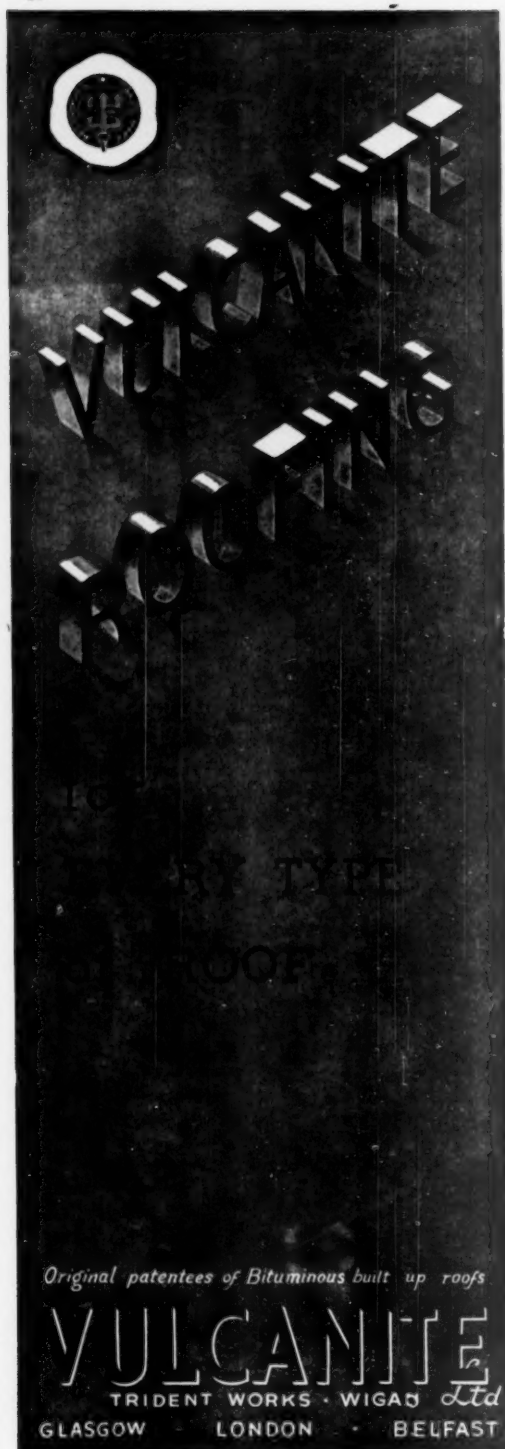
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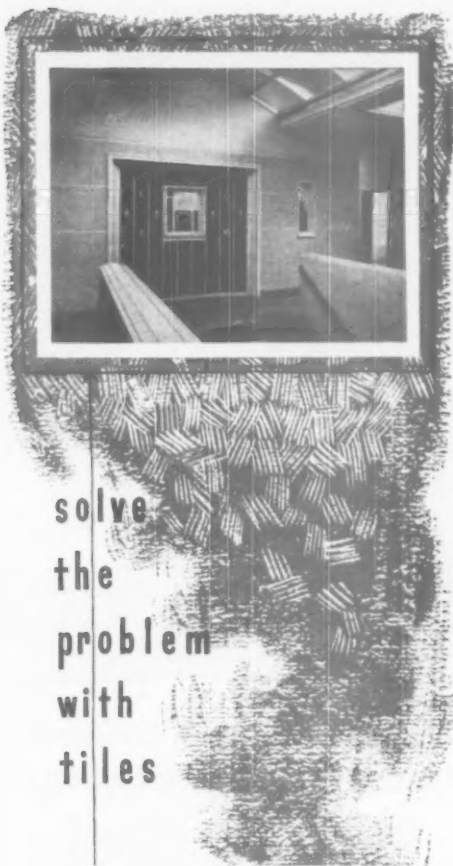
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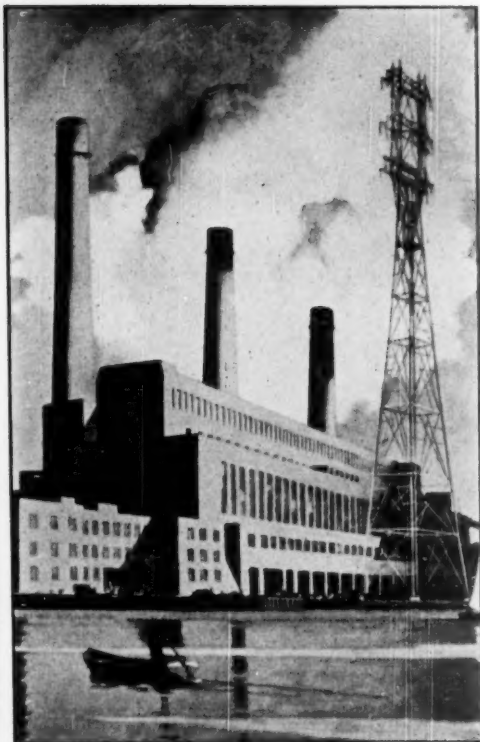
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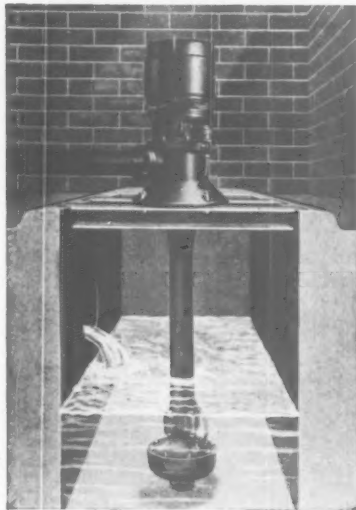
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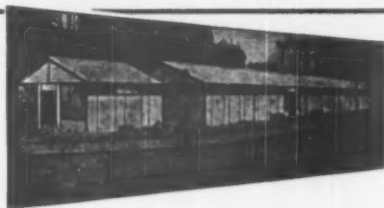
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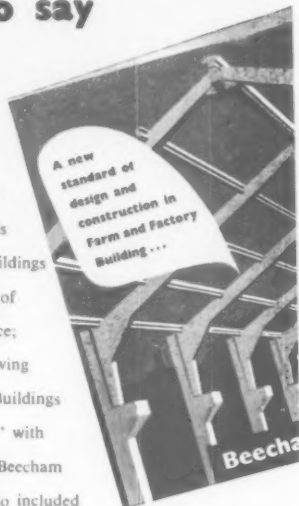
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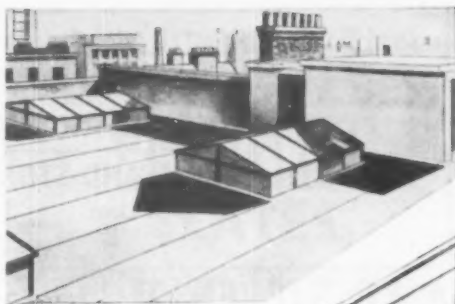
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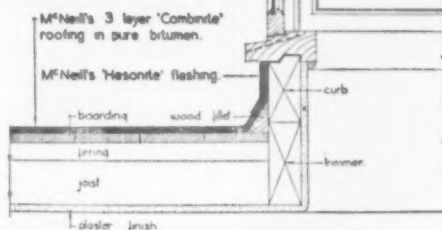


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Applications, giving full particulars of the candidate's age, qualifications and experience, together with the names of two persons to whom reference can be made, must reach the General Manager, Bracknell Development Corporation, Farley Hall, Binfield, Bracknell, Berks, on or before 31st August, 1950. [4749]

## CITY OF BIRMINGHAM PUBLIC WORKS DEPARTMENT.

**APPLICATIONS** are invited for the following appointment to the permanent staff in the Architectural Section of the Public Works Department—

- SENIOR QUANTITY SURVEYOR**—Grade APT. VIII (£685-£760).

Applicants must be Associate Members of the Royal Institution of Chartered Surveyors (Quantity Surveyors) and have had considerable experience in a Quantity Surveyor's Office and be competent to "take-off" and prepare Bills of Quantities for all classes of buildings.

Applicants need not have had previous Local Government experience.

The commencing salary will be fixed at an incremental point within the grade according to the qualifications and experience of the candidate appointed.

The appointment may be terminated by one month's notice on either side.

The successful applicant will be required to undergo a medical examination by the Corporation Doctor and the appointment will be subject to the provisions of the Local Government Superannuation Act, 1917.

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(b) Must be A.M.T.P.I. and A.R.I.B.A. and in addition to architectural and general planning experience should have taken a responsible part in the preparation of development plans.

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Intending applicants must apply to the City Engineer and Surveyor for form of application (bearing post No.) which form, together with details of experience and accompanied by not more than three testimonials, should be received by the undersigned not later than the 7th September, 1950.

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(Continued at foot of next column)

## METROPOLITAN BOROUGH OF PADDINGTON.

## HOUSING DEPARTMENT—ARCHITECTURAL SECTION.

**APPLICATIONS** are invited for the undermentioned appointments, which are subject to the National Joint Council's Service Conditions, the Council's Superannuation Acts, and to one month's notice on either side.

- (a) **ASSISTANT ARCHITECT** (1). A.P.T. VI/VII. (£595-£710 p.a. plus London weighting "J").

Candidates must be Registered Architects, preferably Associates of the Royal Institute of British Architects and have had experience in architectural design and construction of general municipal work, including multi-storey flats, or similar experience with private firms of Architects.

- (b) **JUNIOR ARCHITECTURAL ASSISTANT** A.P.T. I. (£390-£435 p.a. plus London weighting "J").

Applicants should be preparing for the intermediate examination of the Royal Institute of British Architects, be used to preparing working and detail drawings, and be good draughtsmen.

The commencing salary will, in each case, be at an appropriate point within the grades indicated, dependent upon the qualifications and experience of the successful candidates.

For appointment (a), forms of application and conditions of appointment are obtainable from the undersigned.

For appointment (b) there is no application form, but candidates must indicate their age, qualifications, present and past appointments (with dates and salaries), experience, and names of three referees.

Last day for receipt of applications (both appointments) is Saturday, 16th September, 1950.

W. H. BENTLEY, Town Clerk.  
Town Hall, Paddington, W.2.

24th August, 1950. [4761]

## CROWN AGENTS FOR THE COLONIES.

**QUANTITY SURVEYOR (TEMPORARY)** required by the Uganda Government for the Public Works Department for one tour of 30 to 36 months in the first instance. Commencing salary according to age and experience in the scale £655 a year rising to £1,140 a year. Thrift allowance £30. Gratuity on satisfactory completion of services. Free passages. Liberal leave on full salary. Candidates not over 35 must have passed the Intermediate examinations of the Royal Institution of Chartered Surveyors and be capable of performing the normal duties of a Quantity Surveyor including the preparation of Bills of Quantities, site measuring and finalising contracts.—Apply at once by letter, stating age, full names in block letters, whether married or single, and full particulars of qualifications and experience, and mentioning this paper to the Crown Agents for the Colonies, 4 Millbank, London, S.W.1, quoting M/N.25521/3A on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications and will communicate only with applicants selected for further consideration. [4756]

**AIR MINISTRY** have vacancies for **DESIGNERS DRAUGHTSMEN** in the Design Branch of the Works Department for high class work in the following fields: Architecture, Drainage and Water Supply, Land Survey. The work includes designs for London Airport. Salaries are on ranges up to £750. Starting pay according to age and qualifications.—Applications, stating age, qualifications, previous appointments and salary required should be sent to Air Ministry, S.2th, Cornwall House, London, S.E.1. It is requested that applications of candidates not called for interview cannot be acknowledged. [4753]

Doctor and the appointments will be subject to the provisions of the Local Government Superannuation Act, 1917.

Forms of application may be obtained from the undersigned stating which post is applied for and are to be returned accompanied by copies of two recent testimonials not later than 9th September, 1950.

Canvassing either directly or indirectly will disqualify.

HERBERT J. MANZONI,  
City Engineer and Surveyor.

The Civic Centre,  
Birmingham, 1. [4759]

## CITY OF BRADFORD.

## CITY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of TWO QUANTITY SURVEYORS on the permanent staff in Grade VII at a salary of £615-£710 per annum.

Preference will be given to members of the Royal Institution of Chartered Surveyors who have qualified in the Quantities Section and have had experience in taking off quantities in accordance with the "Standard Method of Measurement."

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

Canvassing in any form will disqualify the candidate and an applicant who is related to a member of, or senior officer of, the Council must disclose the fact in the application.

Application form may be obtained from the City Architect, Town Hall, Bradford, and the completed form, together with two recent testimonials, must be returned to me not later than Monday the 11th September, 1950.

No assistance can be given in the provision of housing accommodation.

W. H. LEATHAM, Town Clerk.  
Town Hall, Bradford. [4763]

## LONDON COUNTY COUNCIL.

APPLICATIONS are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats) and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (1016)

[1010]

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Bills of Quantities and Specification will be sent to intending tenderers. Plans may be seen at my office during normal working hours, or at the offices of the Architects, or the Clerk of Works' Office on the site.

The acceptance of any tender is subject to the approval of the Home Office and the Council do not bind themselves to accept the lowest or any tender.

HERBERT COPLAND, Clerk of the Council,  
County Offices, Lincoln.  
2nd August, 1950. [4730]

ARCHITECTURAL APPOINTMENTS  
VACANT

APPLICATIONS are invited for positions as ASSISTANT ARCHITECTS in an Architect's Office of the Civil Engineer's Department, British Railways, located in London. Assistants will be engaged on large Station Reconstruction Schemes and should be A.R.I.B.A. or hold an equivalent qualification. The salary offered is up to £550 per annum dependent on qualification and experience. The posts are temporary.—Apply, stating age, qualifications and experience to Box 5774, The Architect and Building News. [4722]

ARCHITECTURAL Assistant or Draughtsman (Male or Female) urgently required by Professional Firm in Evesham District. Interesting work and responsible position.—Write with particulars and details of salary required to Box 6099, The Architect and Building News. [4762]

LONDON Firm of Architects have vacancies for Junior Assistants. Progressive positions for competent applicants. Salary £350-£550 per annum. Office experience essential. Five-day week.—Telephone Museum 0883 for appointment. [4755]

## SITUATIONS VACANT

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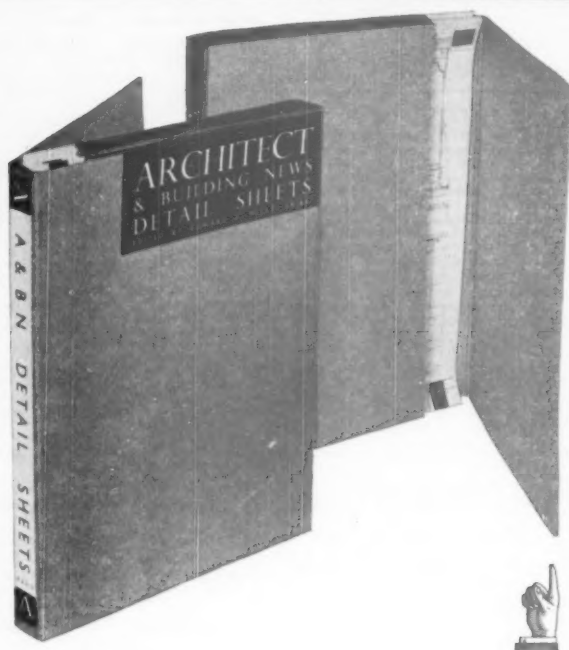
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## INDEX TO ADVERTISERS

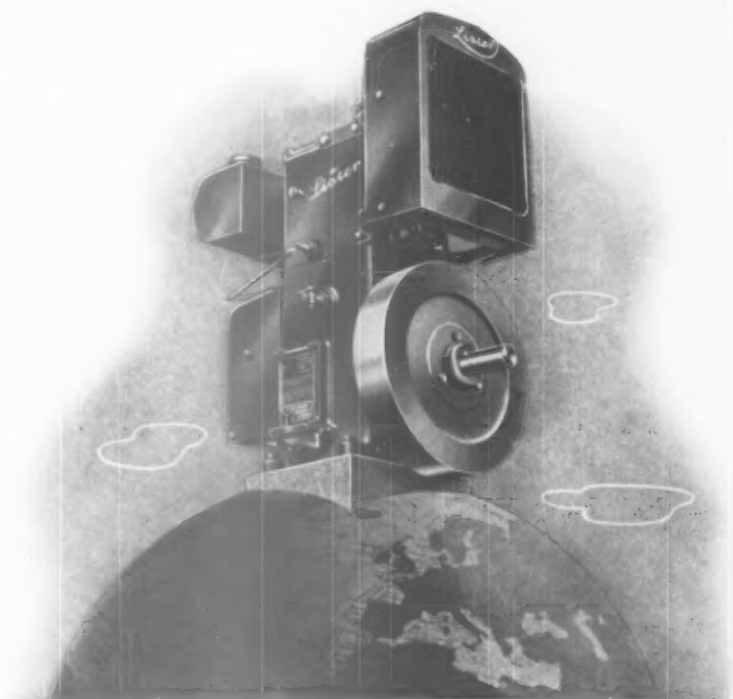
Official Notices, Tenders, Auctions, Legal and Miscellaneous Appointments on pages 34 and 35.

Ademex Ltd. . . . .	33	Franki Compressed Pile Co. Ltd. . . . .	11	Margolis, M. . . . .	32	Rowley Bros. Ltd. . . . .	15
Ascot Gas Water Heaters Ltd. . . . .	20	French, Thomas & Sons Ltd. . . . .	3	Martyn Ltd. Co. Ltd. . . . .	9	Rubert Co. Ltd., The . . . . .	29
Bath & Portland Stone Firms Ltd. . . . .	31	General Electric Co. Ltd., The . . . . .	5	Marrat & Scott Ltd. . . . .	14	Sarnex Ltd. . . . .	21
Beecham Estates Construction Co. Ltd. . . . .	32	Gent & Co. Ltd. . . . .	29	McCarthy, M. & Sons Ltd. . . . .	32	Sharmar, R. W. Ltd. . . . .	32
Betterways Ltd. . . . .	35	Gibson Arthur L. & Co. Ltd. . . . .	35	McNeill, F. & Co. Ltd. . . . .	30	Sigwart Floor Co. Ltd. . . . .	22
Boulton & Paul Ltd. . . . .	13	Gillett & Johnston Ltd. . . . .	27	Mealing Bros. Ltd. . . . .	32	Sonoi (1924) Ltd. . . . .	31
Bright's Asphalt Contractors Ltd. . . . .	32	Gimson & Co. (Leicester) Ltd. . . . .	30	Morris, Herbert Ltd. . . . .	32	Standard Patent Glazing Co. Ltd. . . . .	25
British Electricity . . . . .	28	Henley's, W. T. Telegraph Works Co. Ltd. . . . .	30	Mullen & Lumsden Ltd. . . . .	32	Steven, A. & P. Ltd. . . . .	32
British Reinforced Concrete Engineering Co. Ltd. . . . .	3	Highways Construction Ltd. . . . .	33	Newman, William & Sons Ltd. . . . .	4	Sun Insurance Office Ltd. . . . .	28
Building Crafts Training School . . . . .	35	I.C.E. (Metals) Ltd. . . . .	6	Newton Chambers and Co. Ltd. . . . .	23	Temple Vanish Co. Ltd., The . . . . .	18
Cellon Ltd. . . . .	24	Industrial Engineering Ltd. . . . .	12	Norris, C. W. Ltd. . . . .	10	Tenest Fibre Board Co. Ltd. . . . .	32
Clarke, T. & Co. Ltd. . . . .	18	Jenson & Nicholson Ltd. . . . .	19	Northair Organisation . . . . .	33	Thorn, J. & Sons Ltd. . . . .	29
Clifford, Charles & Sons Ltd. . . . .	31	Key Engineering Co. Ltd. . . . .	33	Parkington Bros. Ltd. . . . .	32	Thompson, John Beacon Windows Ltd. . . . .	8
Curfew Doors & Shutters Ltd. . . . .	33	La Mont Steam Generator Ltd. . . . .	18	Pickington Tiles Ltd. . . . .	27	Vaughan Lift Engineering Ltd. . . . .	16
Dennison Kett & Co. Ltd. . . . .	32	Lewis Bitumen & Asphalt Co. Ltd. . . . .	32	Price, D. W. . . . .	30	Vulcanite Ltd. . . . .	26
Docker Bros. . . . .	2	Limmer & Trinidad Lake Asphalt Co. Ltd. . . . .	25	Robbe Cement Enamel Finishes Ltd. . . . .	17	Walker Bros. Ltd. . . . .	14
Econia Modern Products Ltd. . . . .	26	Lyster, R. A. & Co. Ltd. . . . .	25	Rhodes Brydon & Young Ltd. . . . .	28	Ward, Thomas W. Ltd. . . . .	32
Engert & Roffe Ltd. . . . .	32	Trinity Back Cover . . . . .		Reliable Plywood Co. Ltd. . . . .	30	Watts Patent Building Equipment Co. Ltd. . . . .	35
Farmer, S. W. & Son Ltd. . . . .	16						



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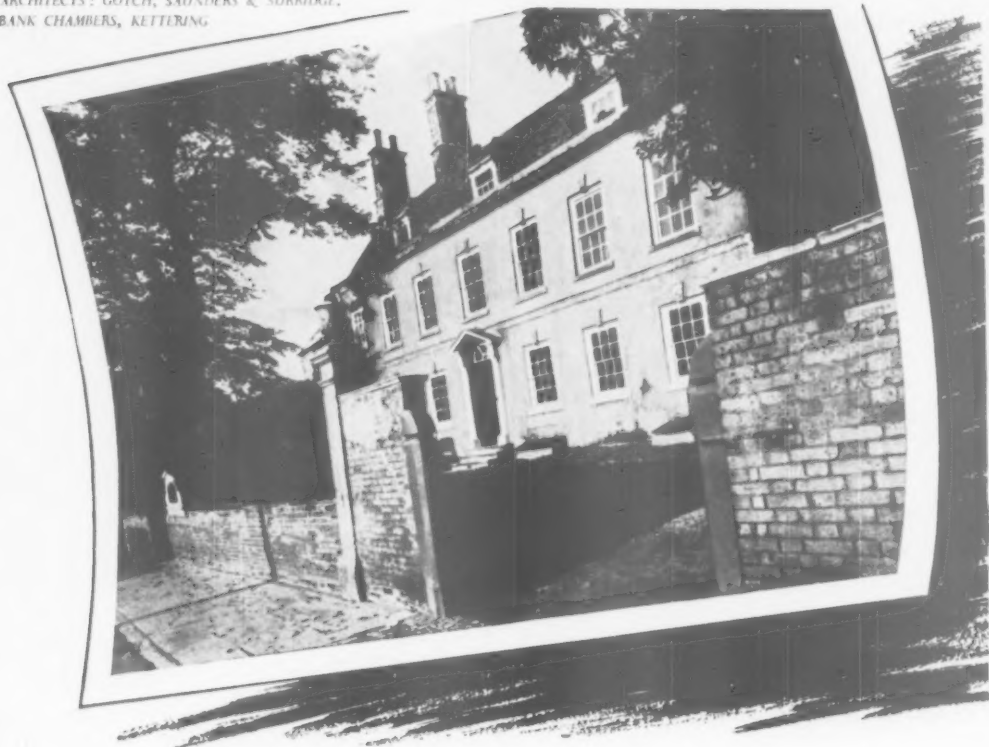


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